# 100% PLANS

# NORTH AMES STREET SIDEWALK IMPROVEMENTS

WEST MATTHEWS STREET TO PARK CENTER DRIVE

TOWN OF MATTHEWS MECKLENBURG COUNTY, NC

TYPE OF WORK: GRADING, SIDEWALK, DRAINAGE, PEDESTRIAN CROSSING, EROSION CONTROL

# **ENGINEER:**

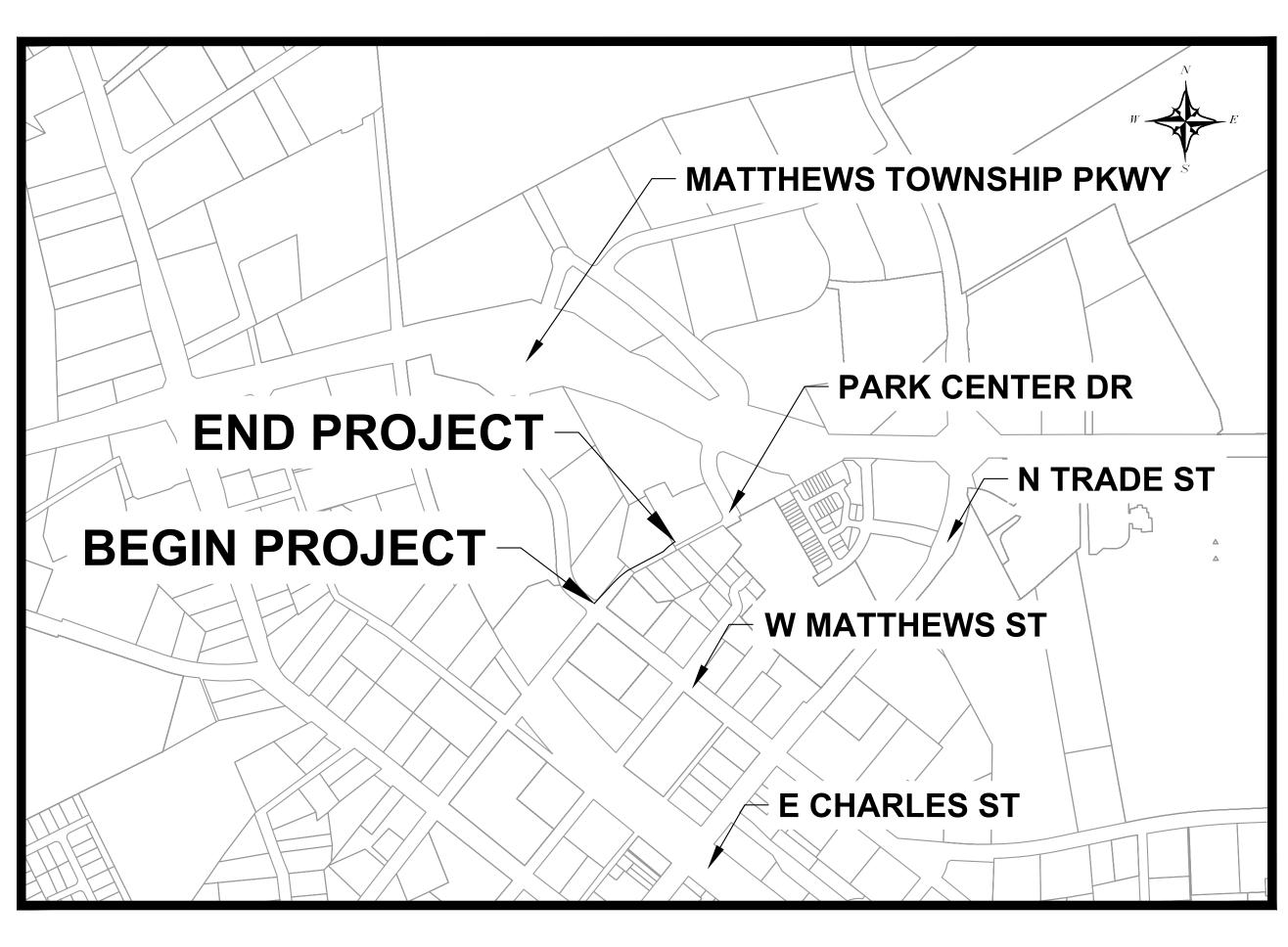
200 SOUTH TRYON STREET SUITE 200 CHARLOTTE, NC 28202 PHONE 704-626-1192 CONTACT: ALEX MCINTYRE, P.E.

# OWNER:

TOWN OF MATTHEWS 232 MATTHEWS STATION ST MATTHEWS, NC 28105 PHONE (704) 847-4411 CONTACT: DANA STOOGENKE, AICP

# SURVEYOR:

CES GROUP ENGINEERS, LLP 274 N. HIGHWAY 16 BUSINESS SUITES 200-500 DENVER, NC 28037 PHONE (704) 489 1500 CONTACT: KENT HUDSON, PLS

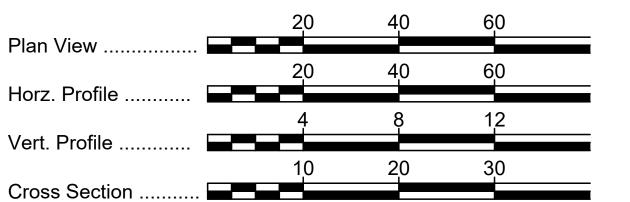


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**VICINITY MAP** 

PROJECT LENGTH = 450 FEET JANUARY 2022

GRAPHIC SCALES







SHEE COVER

SHEET NUMBER C-1.0

CLEARING ON THIS PROJECT SHALL BE PERFORMED BY THE LIMITS ESTABLISHED BY METHOD 2

#### **GENERAL NOTES**

#### **ABBREVIATIONS**

#### **CONVENTIONAL SIGNS**

#### PROPOSED CURB ELEVATIONS:

THE CONTRACTOR SHALL SET AND ADJUST PROPOSED CURB ELEVATIONS AS NECESSARY TO ENSURE PROPER LONGITUDINAL GRADE FOR DRAINAGE. THE CONTRACTOR SHALL RETAIN EXISTING PAVEMENT, UNLESS OTHERWISE NOTED.

#### DRIVEWAYS AND SIDEWALKS:

PROPOSED DRIVEWAY ENTRANCE DIMENSIONS ARE FROM EXPANSION JOINT TO EXPANSION

- JOINT. MATCH REPLACEMENT MATERIALS TO THE EXISTING SURFACE ACCORDINGLY: • CONCRETE - SIX INCH PORTLAND CEMENT CONCRETE (3600 PSI).
- ASPHALT (COMMERCIAL) TWO INCH S9.5B COURSE AND FOUR INCH I19.0C INTERMEDIATE COURSE.
  - (RESIDENTAL) TWO INCH S9.5B COURSE AND FOUR INCH AGGREGATE BASE (ABC) COURSE.
- GRAVEL SIX INCH INCIDENTAL STONE

SIDEWALK SHALL BE FOUR INCHES THICK, AND SIX INCHES THICK AT DRIVEWAY CROSSINGS. SEE SHEET C-2.0 FOR PAVEMENT SCHEDULE.

CROSS SLOPES ON SIDEWALKS SHALL NOT EXCEED 2.0%.

RUNNING SLOPES ALONG SIDEWALKS SHALL NOT EXCEED 5.0%, OR THE ADJACENT ROADWAY SLOPE AS MEASURED AT THE GUTTER PAN, WHICHEVER IS GREATER.

A TURNING SPACE (LANDING) SHALL BE PROVIDED AT ALL LOCATIONS WHERE A PEDESTRIAN MIGHT TURN TO CHANGE DIRECTION OF TRAVEL. THE LANDING SHALL BE A MINIMUM OF 4 FEET BY 4 FEET, UNLESS NOTED BY THE ENGINEER. TYPICALLY LANDING DIMENSIONS WILL MATCH SIDEWALK WIDTH. THE LANDING ALSO SHALL NOT EXCEED 2.0% SLOPE MEASURED PERPENDICULAR TO THE ROADWAY. THE LANDING ALSO SHALL NOT EXCEED 2.0% OR ADJACENT ROADWAY SLOPE, WHICHEVER IS GREATER, MEASURED PARALLEL TO THE ROADWAY.

A CROSS SLOPE TRANSITION PANEL MAY BE REQUIRED WHERE PROPOSED SIDEWALK MEETS EXISTING SIDEWALK WITH A CROSS SLOPE GREATER THEN 2.0%. THE TRANSITION PANEL SHALL NOT EXCEED 2.0% ON THE SIDE OF THE PROPOSED SIDEWALK AND/OR RAMP, AND SHALL MATCH THE EXISTING CROSS SLOPE ON THE SIDE OF THE EXISTING SIDEWALK.

#### **DRAINAGE STRUCTURES:**

GRADES, ELEVATIONS AND LOCATIONS SHOWN ARE APPROXIMATE. AS DIRECTED BY THE ENGINEER, THEY MAY BE ADJUSTED TO ACCOMMODATE UNFORESEEN CONDITIONS. STATIONS, OFFSETS AND ELEVATIONS REFER TO THE CENTER OF DROP INLETS. MANHOLES AND JUNCTION BOXES, AND THE MIDPOINT OF THE LIP FOR CATCH BASINS. PIPE AND BOX CULVERT LENGTHS ARE REPORTED IN THE CONSTRUCTION DOCUMENTS FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE, INCLUDING TRANSITIONS, HORIZONTAL AND VERTICAL BENDS. ALL PIPES SHALL BE RCP CLASS III. UNLESS OTHERWISE NOTED.

WEEP HOLES ARE TO BE CONSTRUCTED AS DIRECTED BY THE ENGINEER. IF REQUIRED, WEEP HOLES ARE TO BE CONSTRUCTED IN THE BOTTOM  $\frac{1}{3}$  OF THE STRUCTURE. ATTACH HARDWARE CLOTH (ALUMINUM OR GALVANIZED STEEL NO. 4 WIRE REINFORCEMENT) TO THE OUTSIDE OF T STRUCTURE WITH HEAVY DUTY CONSTRUCTION ADHESIVE OVER THE WEEP HOLE. PLACE A POROUS FABRIC BAG FILLED WITH ONE CUBIC FOOT OF NO. 78M STONE AT EACH WEEP HOLE AGAINST THE HARDWARE CLOTH. THERE WILL BE NO SEPARATE PAYMENT FOR THIS WORK.

UTILITIES ARE ILLUSTRATED FOR INFORMATION PURPOSES ONLY. THE TOWN WILL NOT BE HELD RESPONSIBLE FOR THE ACCURACY OF UTILITY LOCATIONS, SIZES, DEPTHS, OR FOR COMPLETENESS OF UTILITY INFORMATION.

PRIOR TO CONSTRUCTION AND VIA THE TOWN UTILITY COORDINATOR AND TOWN INSPECTOR. THE CONTRACTOR SHALL NOTIFY AND MEET WITH ALL UTILITIES AFFECTED TO DETERMINE UTILITY LOCATIONS. THE CONTRACTOR SHALL PROTECT ALL UTILITIES FROM DAMAGE CAUSED BY HIS OPERATIONS OR THOSE OF HIS AGENTS. THE CONTRACTOR SHALL HOLD THE CITY HARMLESS FOR ANY THIRD-PARTY INCONVENIENCE CREATED BY WORK OF HIS OWN FORCES OR THAT OF HIS AGENTS. ANY DAMAGES INCURRED SHALL BE THE CONTRACTORS FINANCIAL

RESPONSIBILITY. LINES ONLY. ALL OTHER ADJUSTMENTS/RELOCATIONS WILL BE PERFORMED BY THE VARIOUS UTILITY OWNERS. VIA THE TOWN PROJECT MANAGER, THE CONTRACTOR SHALL COORDINATE WORK WITH UTILITY OWNERS SO AS NOT TO ADVERSELY AFFECT THE PROJECT SCHEDULE. THE TOWN WILL NOT BE HELD RESPONSIBLE FOR ANY DELAYS OR DISRUPTIONS TO THE WORK SCHEDULE OF OTHER UTILITY OWNERS. THE CONTRACTOR SHALL STAY A MINIMUM OF 5 FEET AWAY FROM ALL UTILITY POLES.

- FOR UTILITY LOCATES CALL NORTH CAROLINA ONE-CALL @ 1-800-632-4949.
- WARNING: OVERHEAD UTILITIES. UNLESS OTHERWISE NOTED FOR RELOCATION, THE CONTRACTOR IS TO WORK UNDER ALL EXISTING OVERHEAD UTILITIES.

THE CONTRACTOR SHALL ADJUST ALL WATER VALVES, WATER METER BOXES AND WATER VAULTS TO FINISHED GRADE. WATER METERS LOCATED IN SIDEWALKS OR CONCRETE DRIVEWAYS SHALL BE INSTALLED WITHIN CONCRETE BOXES.

GAS LINES WILL BE ADJUSTED/RELOCATED AS NEEDED BY PIEDMONT NATURAL GAS. VIA THE CITY UTILITY COORDINATOR AND CITY INSPECTOR, THE CONTRACTOR SHALL CONTACT PIEDMONT NATURAL GAS AT LEAST TWO WEEKS PRIOR TO CONSTRUCTION.

## EXISTING SANITARY SEWER AND WATER LINE:

PRIOR TO THE BEGINNING OF ANY WATER AND/OR SANITARY SEWER WORK, CONTACT THE CHARLOTTE WATER PROJECT MANAGER, AND AN INSPECTOR WILL BE PROVIDED FOR WORK OVERSIGHT.

WHERE SANITARY SEWERS AND WATER LINES ARE ENCOUNTERED, THE CONTRACTOR SHALL USE CARE IN WORKING AROUND OR NEAR THEM. IF AN EXISTING SEWER OR WATER LINE IS DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY REPORT THE PROBLEM TO CHARMECK 311 AND THE CHARLOTTE WATER PROJECT MANAGER AND INSPECTOR, AND REPLACE THE SEWER OR WATER LINE WITH CLASS 350 DUCTILE IRON PIPE. THE CONTRACTOR SHALL REPLACE A MINIMUM OF 18 FEET OF SANITARY SEWER AND/OR WATER LINE WITH CLASS 350 DUCTILE IRON PIPE WHEN ANY OF THE MINIMUM SEPARATION DISTANCES OUTLINED IN THE SPECIAL PROVISIONS FOR THIS PROJECT ARE NOT MET. ALL WATER VALVES, WATER METER BOXES, AND WATER VAULTS AFFECTED BY THIS CONSTRUCTION ARE TO BE ADJUSTED TO THE FINISHED GRADE BY THE CONTRACTOR.

WATER AND SEWER MAINS ARE TO REMAIN ACTIVE DURING CONSTRUCTION. IF THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL FOLLOW CHARLOTTE WATER PROCEDURES AS OUTLINED IN THE DESIGN MANUAL AND SPECIAL PROVISIONS REGARDING OUTAGES, TEMPORARY WATER SERVICE AND BYPASS SEWER PUMPING. ALL PLANNED OUTAGES ARE TO BE COORDINATED WITH CHARLOTTE WATER, WITH A MINIMUM OF 72 HOURS NOTICES TO THE AFFECTED RESIDENTS AND BUSINESSES.

SANITARY SEWER AND WATER SERVICE LATERALS ARE NOT SHOWN ON THESE PLANS AND WILL BE ENCOUNTERED DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH CHARLOTTE WATER PERSONNEL TO ENSURE THAT ALL EXISTING SERVICES ARE RELOCATED AND KEPT IN SERVICE. THIS WORK IS INCIDENTAL TO ALL CONSTRUCTION ACTIVITIES.

#### **SUBSURFACE PLANS:**

NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR MAY MAKE HIS OWN INVESTIGATION TO DETERMINE SUBSURFACE CONDITIONS.

#### MAIL BOXES:

THE CONTRACTOR SHALL RELOCATE ALL MAIL BOXES AS REQUIRED BY SECTION 107-11 OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES. COORDINATE THIS WORK WITH THE U.S. POSTAL SERVICE.

#### **FENCES:**

THE CONTRACTOR SHALL REMOVE AND RESET FENCES AS NOTED ON THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

#### TREES, SHRUBS, AND HEDGES:

THE CONTRACTOR IS REQUIRED TO REMOVE TREES, SHRUBS, AND HEDGES WITHIN THE EASEMENT LINES UNLESS SHOWN ON THE PLANS TO BE PROTECTED. WHEN ROOT PRUNING IS NECESSARY, CUT ROOTS CLEANLY USING A DISC TRENCHER IN ACCORDANCE WITH SECTION 155.606 OF THE TOWN OF MATTHEWS UNIFIED DEVELOPMENT ORDINANCE. PRUNING SHALL BE PER THE LATEST STANDARD OF THE LANDSCAPE CONSTRUCTION STANDARDS MANUAL (TYP.) USE PLYWOOD FORMS WHEN TREE ROOTS ARE ADJACENT TO PROPOSED CURB & GUTTER OR SIDEWALK. USE MCLD STD. 40.11 FOR BRIDGING TREE ROOTS. TREES SPECIFIED BY THE PLANS TO HAVE ASPHALT CURBING MUST USE MCLD STD. 40.13. TREE PROTECTION SHALL BE IN ACCORDANCE WITH MCLD STD. 40.02. WHEN THE TREE IS CLOSE TO THE WORK AREA TREE PROTECTION MCLD STD. 40.12 SHALL BE USED.

#### SIDE SLOPES:

LIMITS OF PROPOSED SLOPES ARE INDICATED IN THE PLANS, DETAILS AND STANDARD DRAWINGS. THE MAXIMUM SLOPE SHALL NOT EXCEED A 4:1 (HORIZONTAL TO VERTICAL) UNLESS DESIGNATED BY THE ENGINEER. A CUT SLOPE OF 2:1 MAXIMUM WILL BE USED ONLY AS DIRECTED BY THE ENGINEER.

#### EROSION CONTROL

THE CONTRACTOR SHALL MAINTAIN EROSION CONTROL DEVICES IN ACCORDANCE WITH THE APPROPRIATE CITY AND STATE EROSION AND SEDIMENT CONTROL ORDINANCES. THE CONTRACTOR SHALL PREVENT STANDING WATER DUE TO CONSTRUCTION. DISTURBED AREAS SHALL BE SEEDED AND MULCHED AT THE DIRECTION OF THE ENGINEER. THE CONTRACTOR SHALL FOLLOW THE EROSION CONTROL MEASURES SHOWN ON SHEETS EC-01 - EC-08.

#### ACCESSIBLE RAMPS AND DEPRESSED CURB:

THE CONTRACTOR SHALL CONSTRUCT 6-INCH THICK CONCRETE ACCESSIBLE CURB RAMPS AT INTERSECTIONS IN ACCORDANCE WITH THE LATEST REVISIONS FOR ACCESSIBLE CURB RAMPS DETAILS, "PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY" (PROWAG), CONSTRUCTION PLANS & NCDOT STANDARD DRAWINGS.

RUNNING SLOPES ALONG CURB RAMPS SHALL NOT EXCEED 8.3%, BUT SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ALL PANELS OF THE RAMP MUST EQUAL THE SAME PERCENTAGE.

FLARES SHALL BE 10.0% MAXIMUM SLOPE (WHERE APPLICABLE), UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

RAMP CROSS SLOPE SHALL NOT EXCEED 2.0%, OR THE ADJACENT ROADWAY SLOPE AS MEASURED AT THE GUTTER PAN, WHICHEVER IS GREATER.

A TURNING SPACE (LANDING) SHALL BE PROVIDED AT ALL LOCATIONS WHERE A PEDESTRIAN MIGHT TURN TO CHANGE DIRECTION OF TRAVEL. THE LANDING SHALL BE A MINIMUM OF 4 FEET BY 4 FEET, UNLESS NOTED BY THE ENGINEER. TYPICALLY LANDING DIMENSIONS WILL MATCH SIDEWALK WIDTH. THE LANDING SHALL NOT EXCEED 2.0% SLOPE MEASURED PERPENDICULAR TO THE ROADWAY. THE LANDING ALSO SHALL NOT EXCEED 2.0% OR ADJACENT ROADWAY SLOPE, WHICHEVER IS GREATER, MEASURED PARALLEL TO THE ROADWAY.

#### **SAWCUTS:**

THE CONTRACTOR SHALL SAWCUT EXISTING ASPHALT AND/OR CONCRETE SURFACES PRIOR TO REMOVAL UNLESS OTHERWISE DIRECTED BY THE ENGINEER. SAW CUT WIDTH SHALL BE 1 FOOT MINIMUM FROM THE EXISTING EDGE OF PAVEMENT. SAW CUT PAVEMENT SHALL BE LACED AS WELL AS ADDITIONAL PAVEMENT REQUIRED TO TIE—IN TO FACE OF PROPOSED CURB AND GUTTER.

#### TRAFFIC CONTROL:

TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CITY OF CHARLOTTE WORK AREA TRAFFIC CONTROL HANDBOOK (WATCH).

## **STANDARDS**

THE FOLLOWING STANDARDS AND THE LATEST REVISION THERETO ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE ARE CONSIDERED A PART OF THESE PLANS. NCDOT STANDARDS SHALL BE USED. MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS MAY BE USED IF THERE IS NOT AN APPLICABLE NCDOT STANDARD.

# NCDOT:

STD. NO.: 200.02.... ..METHOD OF CLEARING - METHOD II .METHOD OF PIPE INSTALLATION 300.01. .4" CONCRETE SIDEWALK 848 01 848.02.. ..DRIVEWAY TURNOUT - RADIUS TYPE CURB RAMP - EXISTING CURB AND GUTTER 848.06.. ..GUIDE FOR RIP RAP AT PIPE OUTLETS 876.02.. .WORK ZONE ADVANCED WARNING SIGNS 1101.01 1101.02 TEMPORARY LANE CLOSURES 1101.04.. .TEMPORARY LANE CLOSURES 1110.02.. PORTABLE WORK ZONE SIGNS 11.30 01 ..FLAGGING DEVICES 1150.01 1605.01 .TEMPORARY SILT FENCE 1606.01. SPECIAL SEDIMENT CONTROL FENCE ..ROCK INLET SEDIMENT TRAP TYPE C 1632.03... ...ROCK INLET SEDIMENT TRAP TYPE C 1632.03... 16.33.02.. TEMPORARY ROCK SILT CHECK TYPE B ...ROCK PIPE INLET SEDIMENT TRAP TYPE B 1635.02....

#### MECKLENBURG COUNTY:

-	
STD. NO.:	TITLE:
10.17A	STANDARD CURB AND GUTTER
10.25E	TYPE II—MODIFIED DRIVEWAY DETAIL WITH WIDE PLANTING STRIP AND STANDARD CL
10.40A	DIRECTIONAL CURB RAMP WITH SMALL/MEDIUM CURB RADII
11.11	COMMERCIAL STREET TYPICAL SECTION
20.22	FLARED END SECTION 12" TO 72"
40.02	TREE PROTECTION DETAIL
40.12	TEMPORARY TREE PROTECTION DETAIL
50.000	DARALLEL DARKING STANDARDS

#### .ABANDONED ABAND. A.D.... .ALGEBRAIC DIFFERENCE ASPH.. .ASPHALT APPROX. .APPROXIMATELY BOC.. .BACK OF CURB ..BITUMINOUS ВМ., ..BENCH MARK .BEARING .CATCH BASIN C&G... .CURB AND GUTTER .CLEARANCE C/L FENCE. ..CHAIN LINK FENCE ..CORRUGATED MTL PIPE CMP.. CONC. ..CONCRETE CONST. .CONSTRUCTION .DEED BOOK DCB.. .DOUBLE CB .DROP INLET ..DIAMETER ..DRIVEWAY .DIMENSION ..EAST/EASTING ..EACH ELEV.. ..ELEVATION EOP.. ..EDGE OF PAVEMENT ESMT. ..EASEMENT EXIST. ..EXISTING ..FACE OF CURB ..FLARED END SECTION ..FIRE HYDRANT FOC. ..FIBER OPTIC CABLE .GAS VALVE HORIZ. ..HORIZONTAL ..INTERSECTION .INVERT .IRON PIN SET ..LENGTH ..LINEAR FOOTAGE ..LEFT ..POUND .LIGHT POLE MAX.. ..MAXIMUM MIN. .MINIMUM MONO. ..MONOLITHIC .MILES PER HOUR ..METAL .NORTH/NORTHING NTS.. ..NOT TO SCALE ..OVER HEAD ON CENTER PAVT. ...PAVEMENT

..POINT OF CURVATURE

..PERMANENT

..PK NAIL SET

..POWER POLE

..PROPOSED

..POINT OF INT

..PERM SW ESMT

..POINT OF TANGENCY

.REINFORCED CONC PIPE

.. POINT OF VERT INT

..PAGE

.RIGHT

..RELOCATE

.SOUTH

..STATION

..STANDARD .SIDEWALK

.TANGENT

.TEMPORARY

.TEST WIRE

.TYPICAL

.VERTICAL

..WATER METER

..WATER VAULT

.WATER VALVE

..SIXTY PENNY NAIL SET

.WEST

.WITH

..FOOT

.INCH

..RIGHT OF WAY

.STORM DRAIN

.SQUARE FOOT

..SPLIT RAIL FENCE SANITARY SEWER

TEMP CONST ESMT

TRAVERSE POINT

..UNDER GROUND

..PFRM UTILITY FSMT .VERTICAL CURVE

PERM.

PROP.

PSE.

PVI...

RCP..

RELOC..

S/R FENCE.

R/W...

TAN...

TEMP.

T/W...

TYP..

VERT.

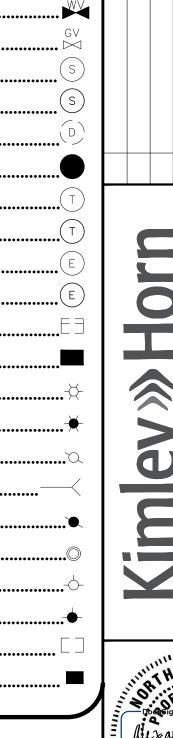
W VAULT.

60p....

Evicting Proparty I in a		
Existing Property Line —		
Maintained as R/W Line —		
Existing Structures —		
Railroad Tracks		
Proposed Edge of Pavement		
Fence		
Slope Stake Line		
Temporary Construction Easement —		
Permanent Sidewalk Easement —	— Е —— Е	Ε
Sidewalk/Utility Easement —	—— SUE ———	—— SUE ——
Storm Drainage Easement —	SDE	SDE
Existing Gas Line —	G G	G ———— G
Existing Water Line —	W	1 —
Existing Sanitary Sewer —	— SS —	—— SS ——
Existing Underground Telecommunications —		
Existing Underground Electric		
Existing Storm Drainage $\equiv$	4	
Proposed Storm Drainage =	-	
Accessible Ramp	••••••	0000
Tree Protection	•••••	\/
Proposed Guardrail	•••••	•••
Silt Fence	••••	
	lk	
Proposed Curb & Gutter, Conc. Drive, Sidewa		
Proposed Curb & Gutter, Conc. Drive, Sidewa Proposed Full Depth Pavement/Sawcut	•••••	••••
•		
Proposed Full Depth Pavement/Sawcut	•••••	
Proposed Full Depth Pavement/Sawcut Proposed Rip Rap Ditch Proposed Gravel	••••••	
Proposed Full Depth Pavement/Sawcut Proposed Rip Rap Ditch Proposed Gravel Proposed Pavement Removal		
Proposed Full Depth Pavement/Sawcut  Proposed Rip Rap Ditch  Proposed Gravel  Proposed Pavement Removal  Proposed Sidewalk Bridging Tree Roots		
Proposed Full Depth Pavement/Sawcut  Proposed Rip Rap Ditch  Proposed Gravel  Proposed Pavement Removal		

**CONVENTIONAL SIGNS** 

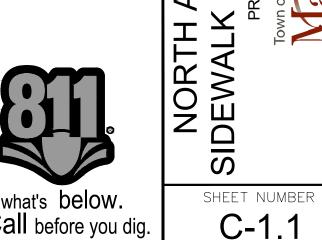
Existing Tree	
Existing Water Meter	WM
Existing Water Valve	₩V
Proposed Water Valve	WV
Existing Gas Valve	
<b>Existing Sanitary Sewer Manhole</b>	S
Proposed Sanitary Sewer Manhole	<i>(</i> )
Existing Storm Drain Manhole	(D)
Proposed Storm Drain Manhole	
Existing Telephone Manhole	T
Proposed Telephone Manhole	T
Existing Electric Manhole	E
Proposed Electric Manhole	E
Existing Catch Basin	E∃
Proposed Catch Basin	
Existing Light Pole	<del>\</del>
Proposed Light Pole	<del></del>
Existing Utility Pole	Q
Guy Wire	
Proposed Utility Pole	
Iron Pin	
Existing Fire Hydrant	
Proposed Fire Hydrant	
Existing Drop Inlet	
Proposed Drop Inlet	<b>=</b>





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Know what's **below**. Call before you dig.



NOT TO SCALE

**END STATION** 

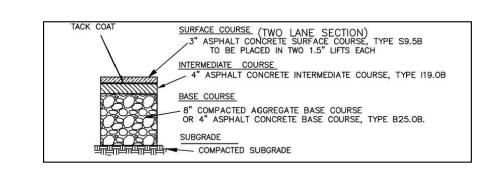
0+20.04

ALIGNMENT

-L1-

**BEGIN STATION** 

0+02.77



INSET A
TYPICAL MINIMUM PAVEMENT SECTION
NOT TO SCALE

EXISTING GROUND

EXISTING GROUND

EXISTING GROUND

A: 1 (VARIES)

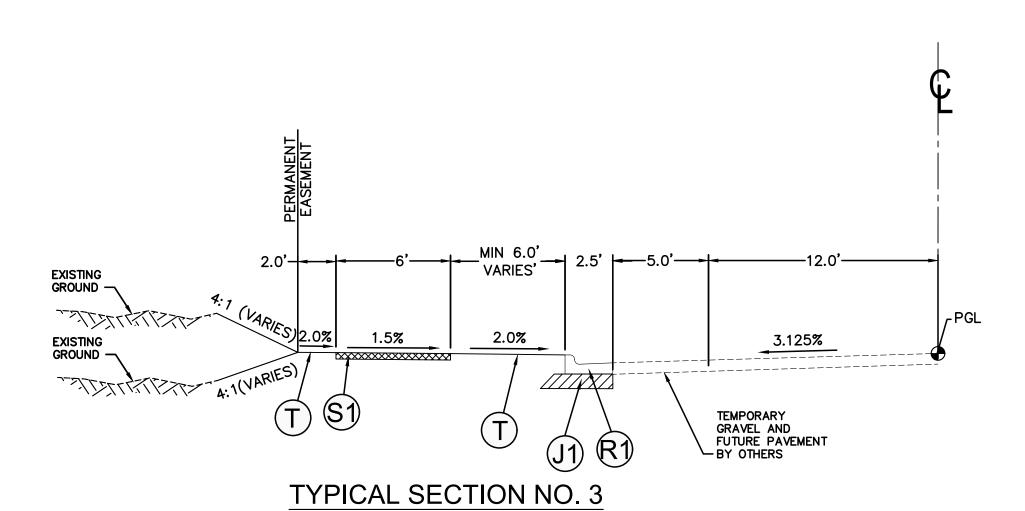
A: 1 (VARIES)

TYPICAL SECTION NO. 2

NOT TO SCALE

BEGIN STATION	END STATION	ALIGNMENT
0+27.46	0+47.87	-L1-
1+52.01	1+63.47	-L1-
1+97.61	2+10.21	-L1-
2+76.79	2+85.22	-L1-
3+22.72	4+48.56	-L1-

\*PLANTING STRIP CROSS SLOPE VARIES FROM 0.1% TO 10% FROM STA. 1+44.3 TO 1+73.2, STA 1+87.5 TO 2+19.5, AND STA 2+77.1 TO 4+48.56 \*\*SHOULDER TRANSITIONS FROM 2.0' TO 1.0' BETWEEN STA. 4+20.10 AND 4+25.58. SHOULDER REMAINS 1.0' FROM STA. 4+25.58 TO 4+48.56



NOT	TO	SCALE

BEGIN STATION	END STATION	ALIGNMENT
0+47.87	1+52.01	-L1-
2+10.21	2+76.79	-L1-

<b>PAVEMENT</b>	SCHEDULE

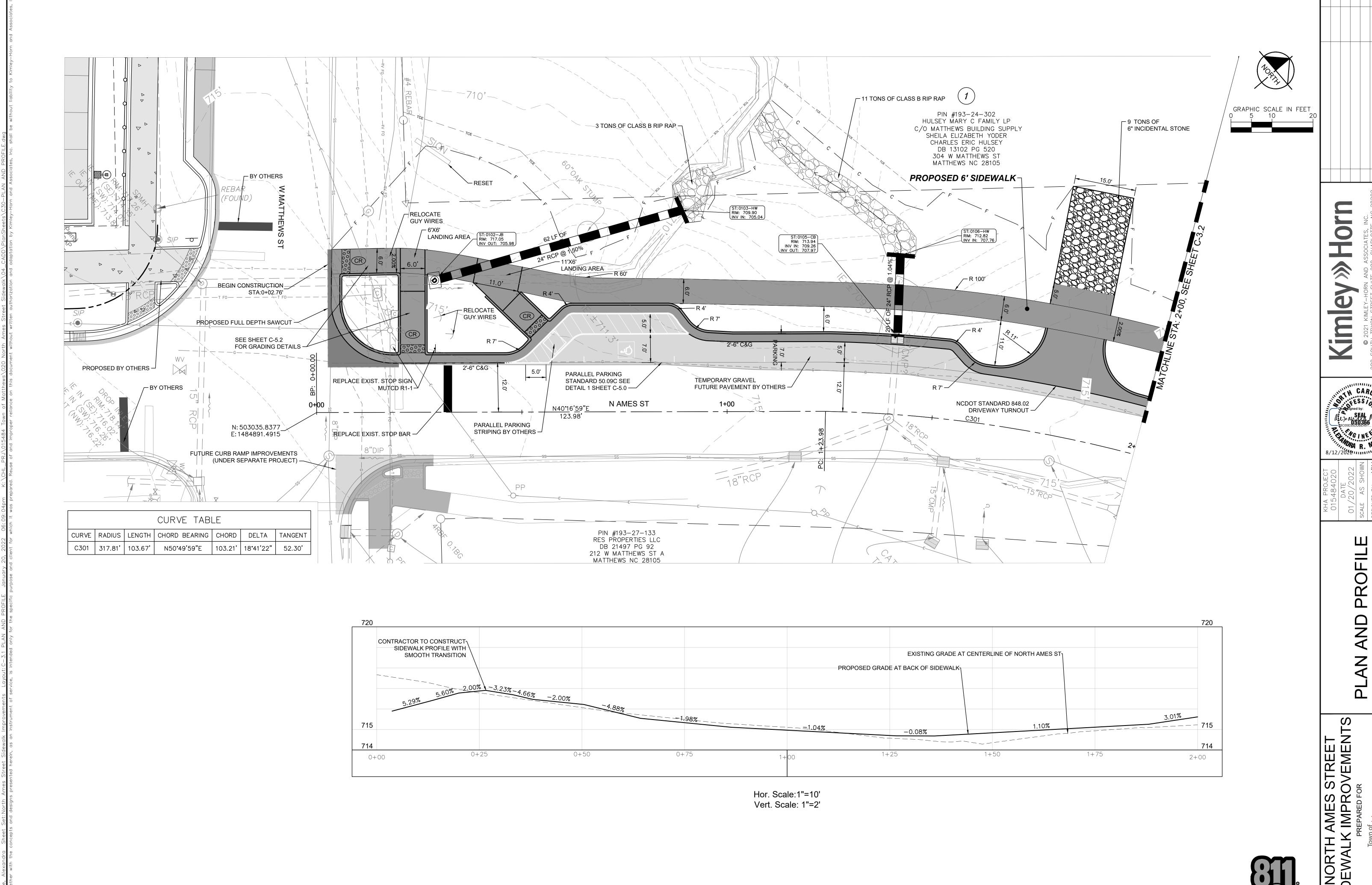
J1	8" AGGREGATE BASE COURSE
$\mathbb{R}_{1}$	2'-6" STANDARD CONCRETE CURB AND GUTTER PER NCDOT STD. DWG. NO. 846.01
$\mathfrak{S}1$	PROPOSED 4" CONCRETE 2.00% MAX CROSS SLOPE
$\overline{T}$	EARTH MATERIAL

NOTES:
1. SEE CROSS SECTIONS FOR VARYING CROSS SLOPES.
2. SLOPE SIDEWALK AND SHOULDERS PER PLANS.



SHEET NUMBER

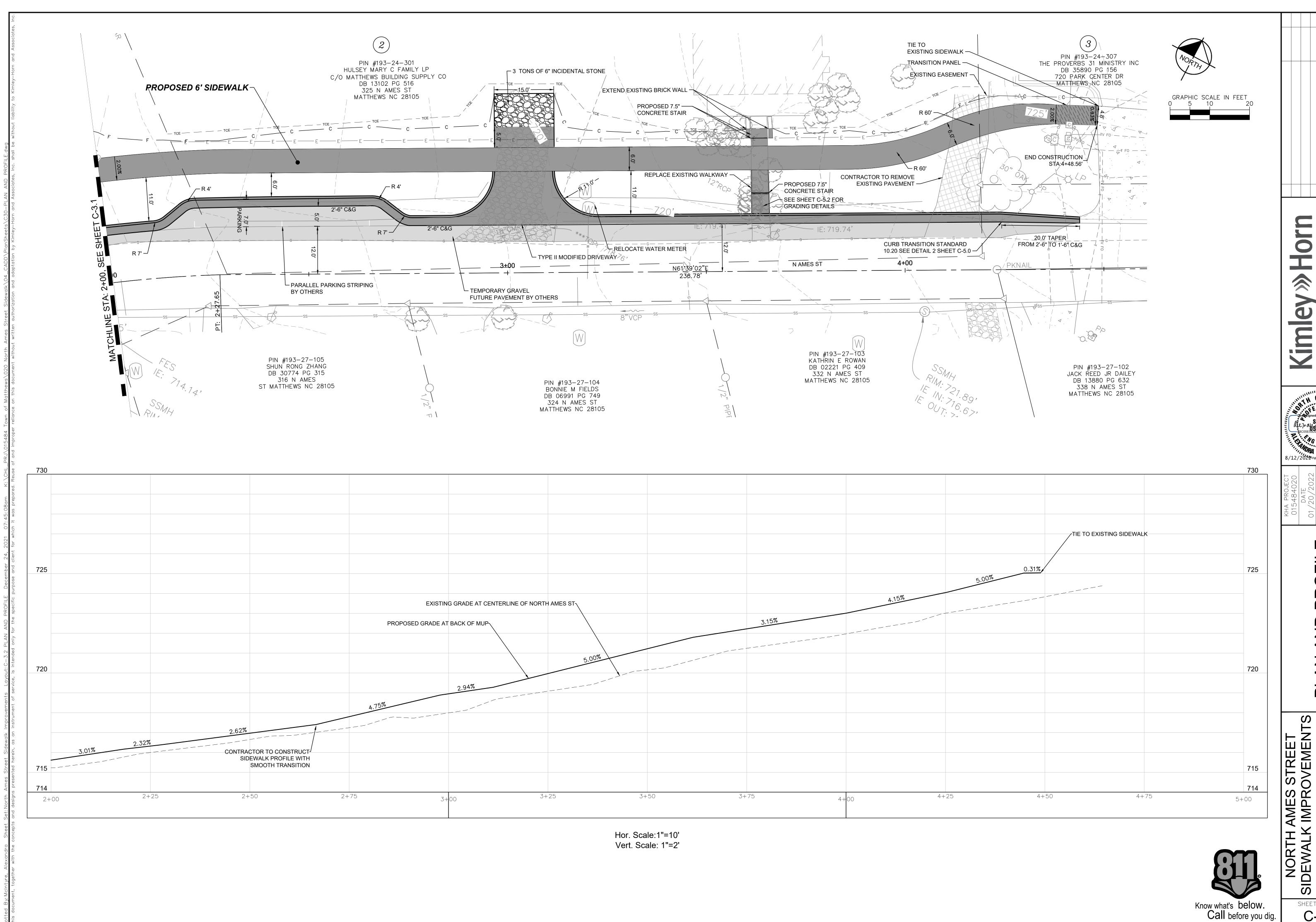
C-2.0



Know what's below.

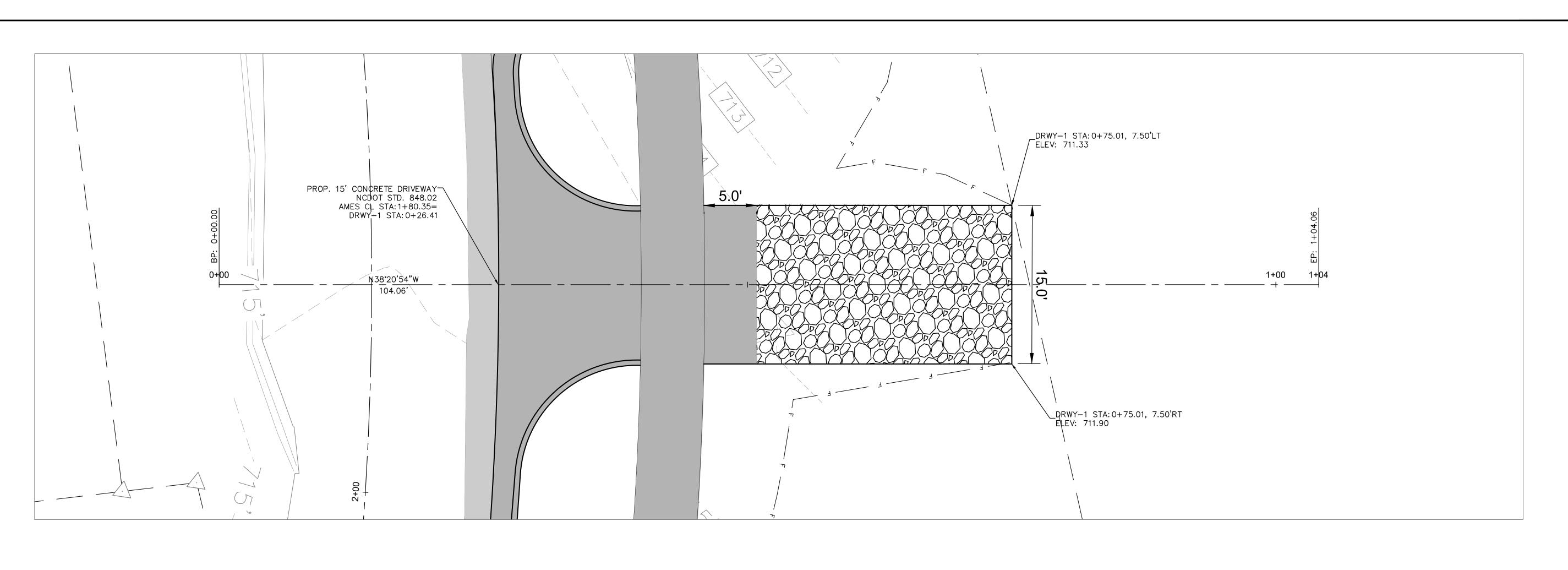
Call before you dig.

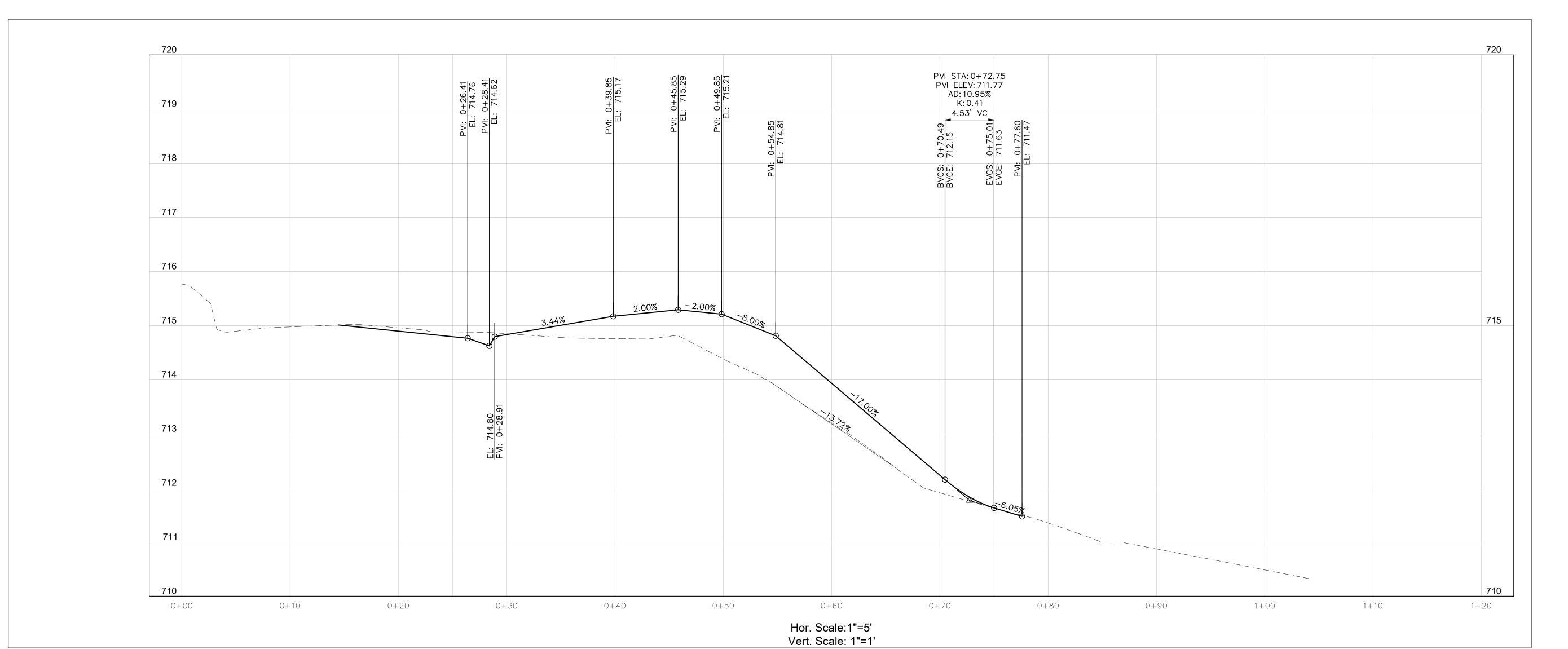
SHEET NUMBER C-3.1



SHEET NUMBER C-3.2

PROFIL







ZOO SOUTH TRYON STREET SUITE ZOO, CHARLOTTE, NC 28
WWW.KIMLEY-HORN.COM



DATE

DATE

01/20/2022

SCALE AS SHOWN

DESIGNED BY ARM

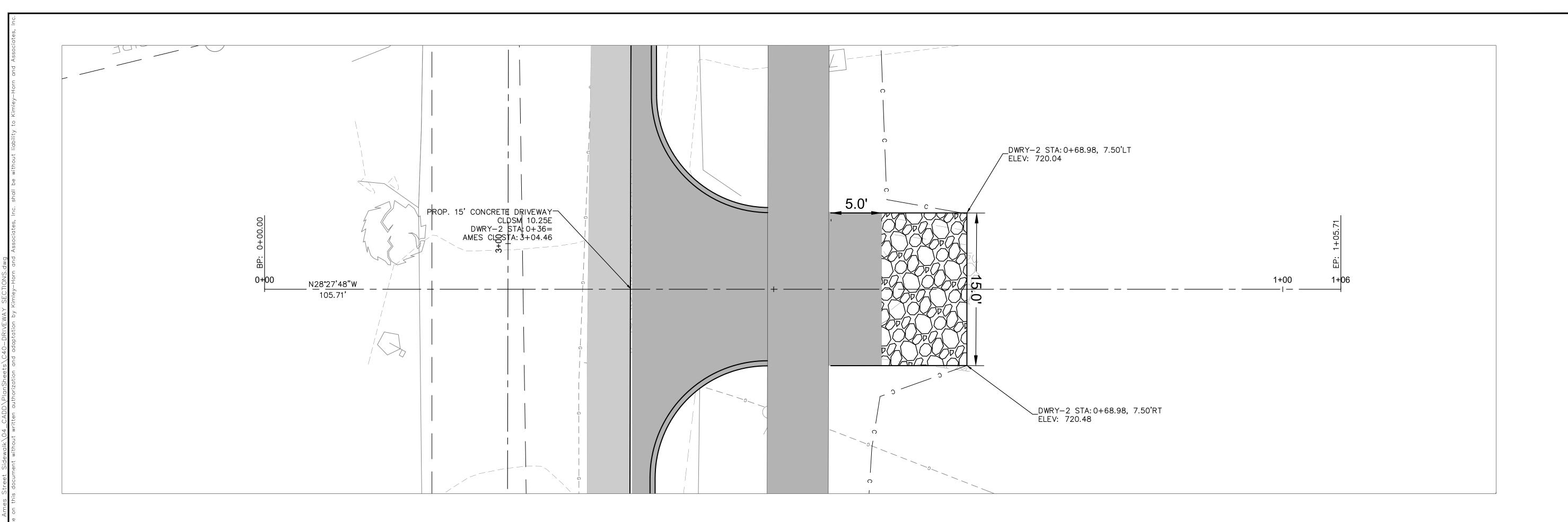
PRAWN BY FACTOR

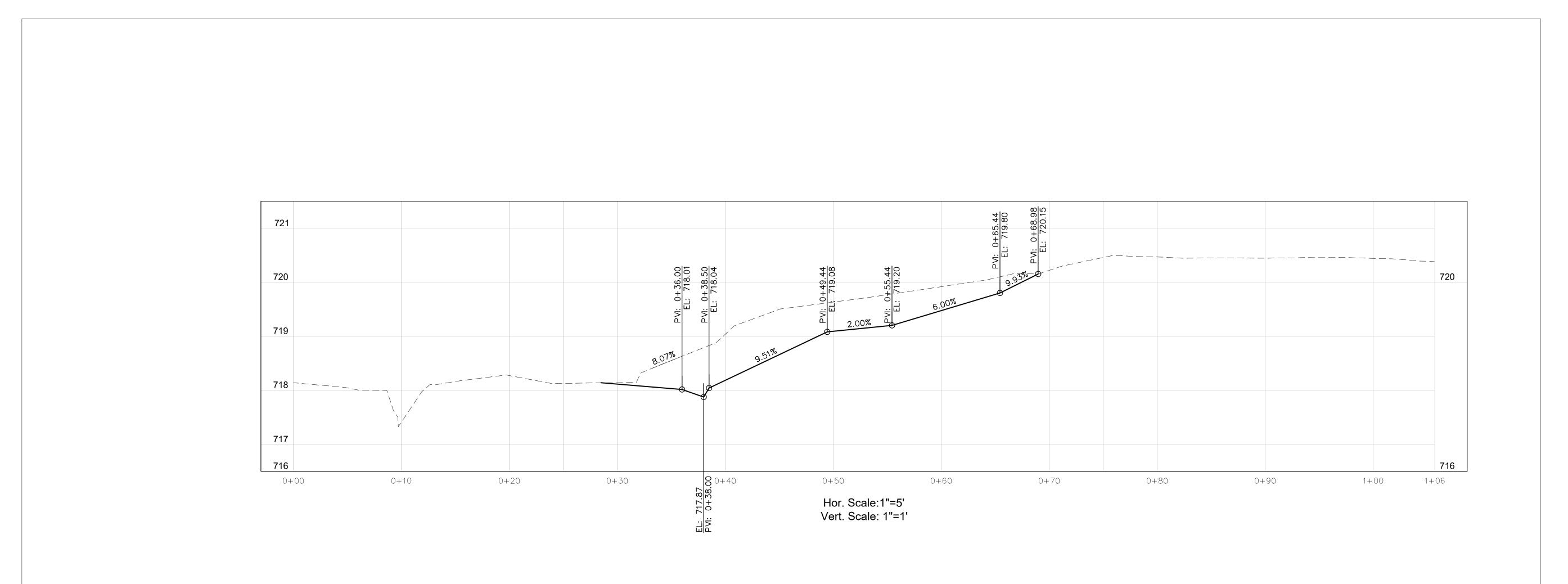
DESIGNED BY ARM

DRIVEWAY PROFILES

NORTH AMES STREET
SIDEWALK IMPROVEMENTS
PREPARED FOR

SHEET NUMBER
C-4.0







TRYON STREET SUITE 200, CHARLOTTE, NC 28202
PHONE: 704-333-5131
www.kimley-horn.com



DATE

01/20/2022

SCALE AS SHOWN

DESIGNED BY ARM

DRAWN BY EAC

DRIVEWAY PROFILES

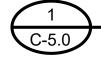
NORTH AMES STREET

EWALK IMPROVEMENTS

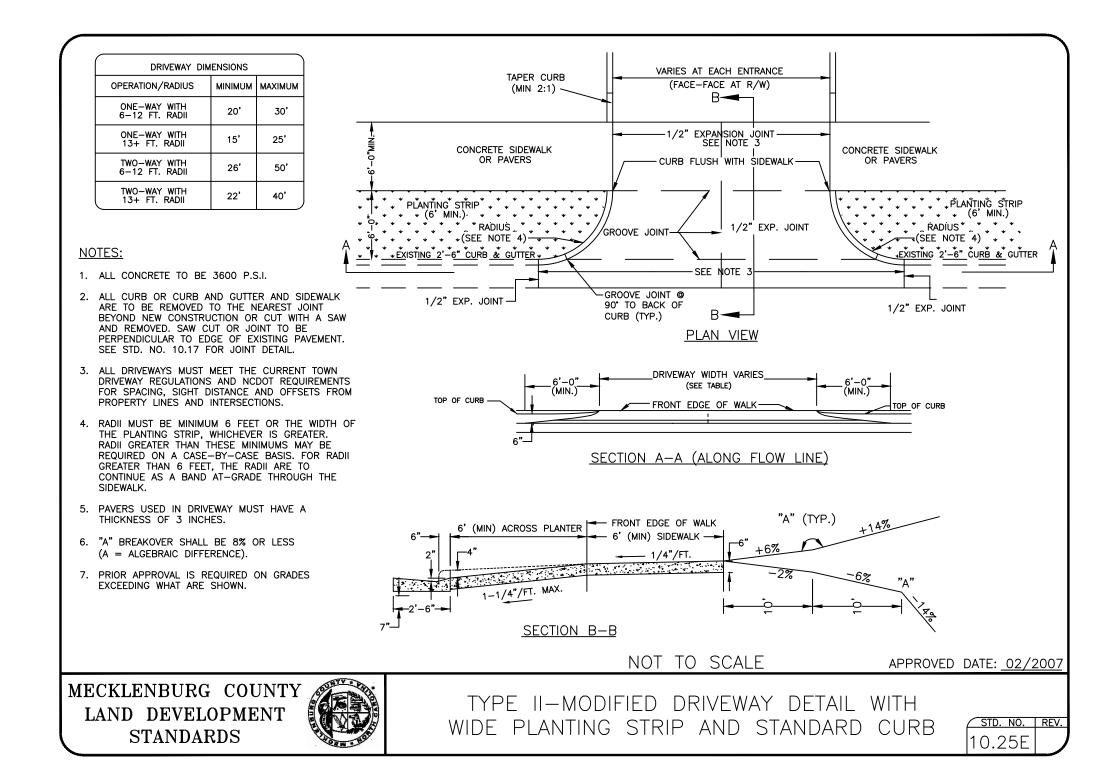
PREPARED FOR

SHEET NUMBER

C-4.1



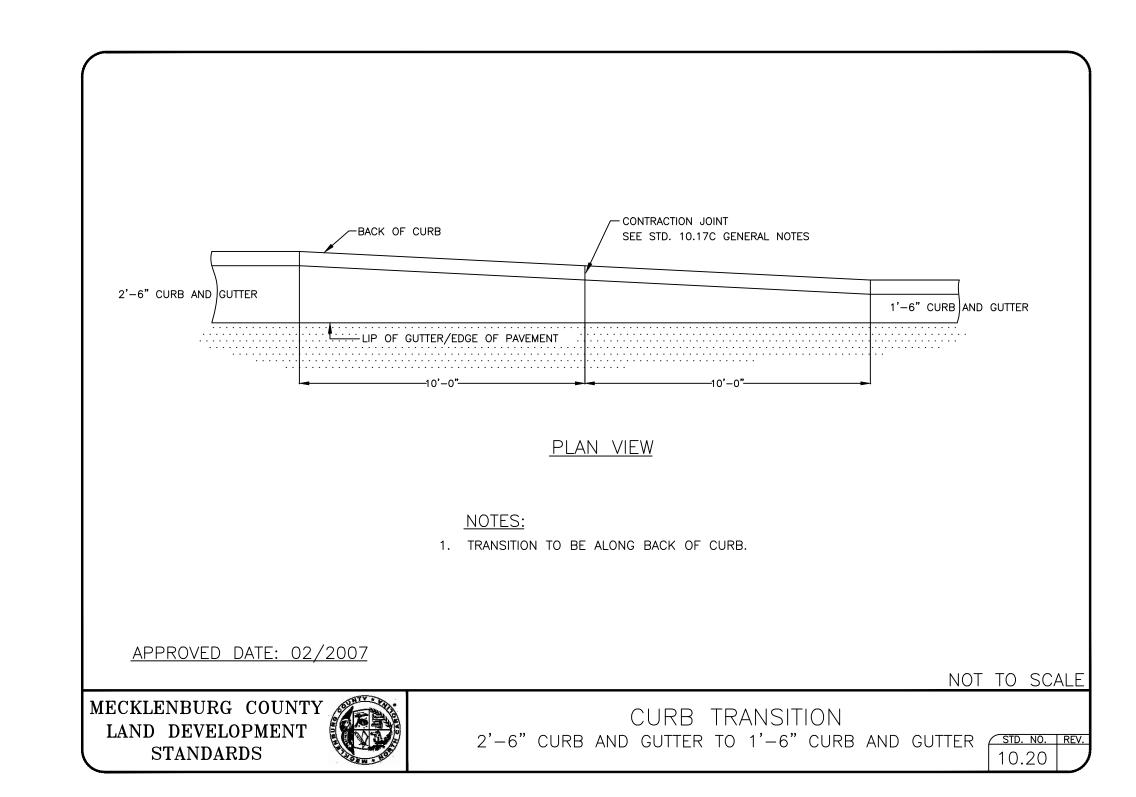
# PARALLEL PARKING STANDARDS

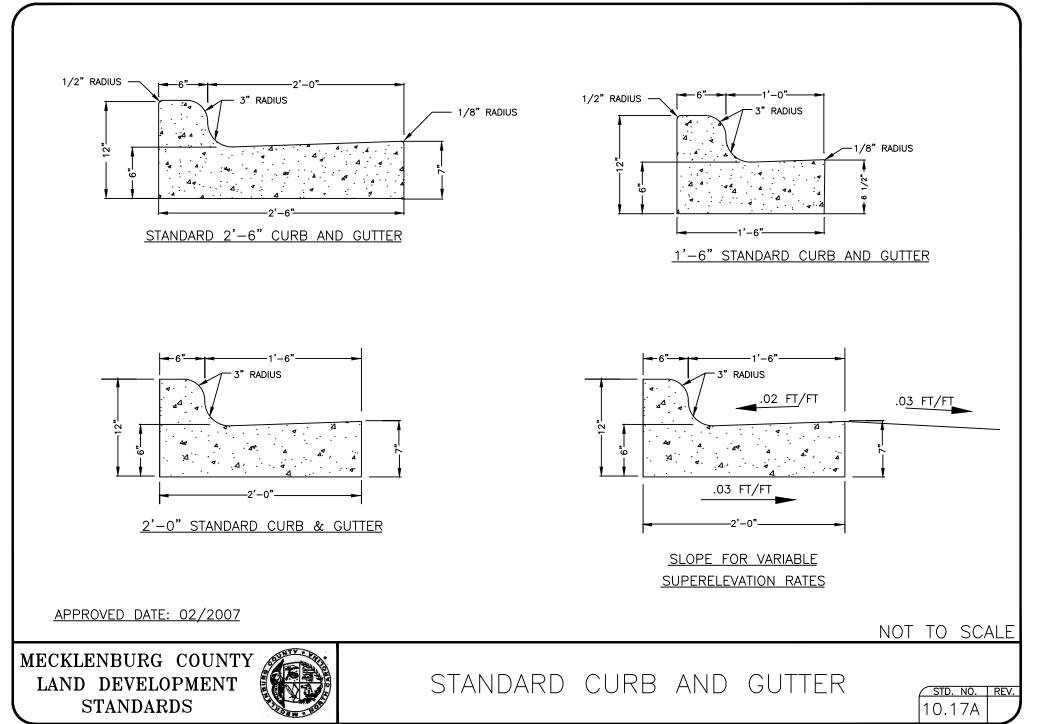




# TYPE II-MODIFIED DRIVEWAY





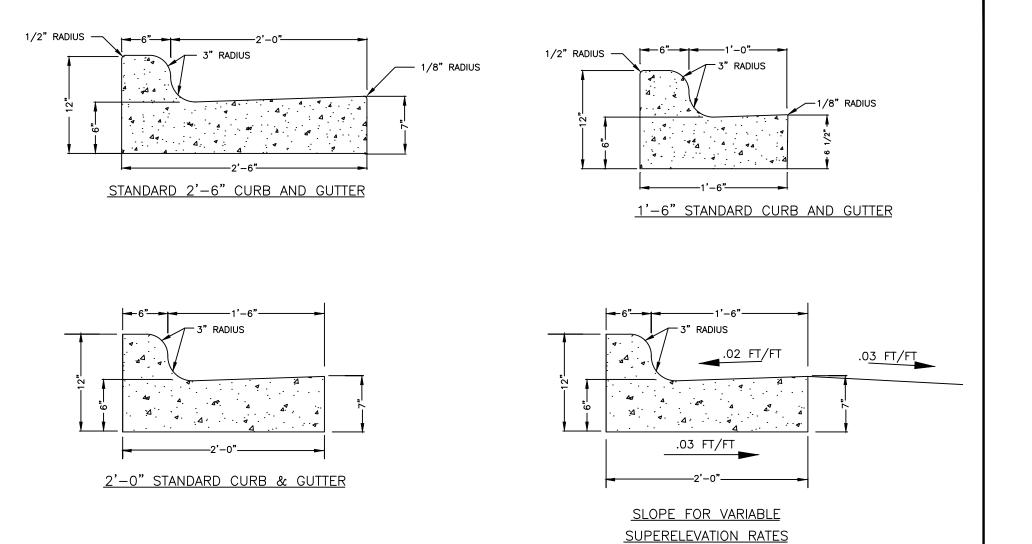




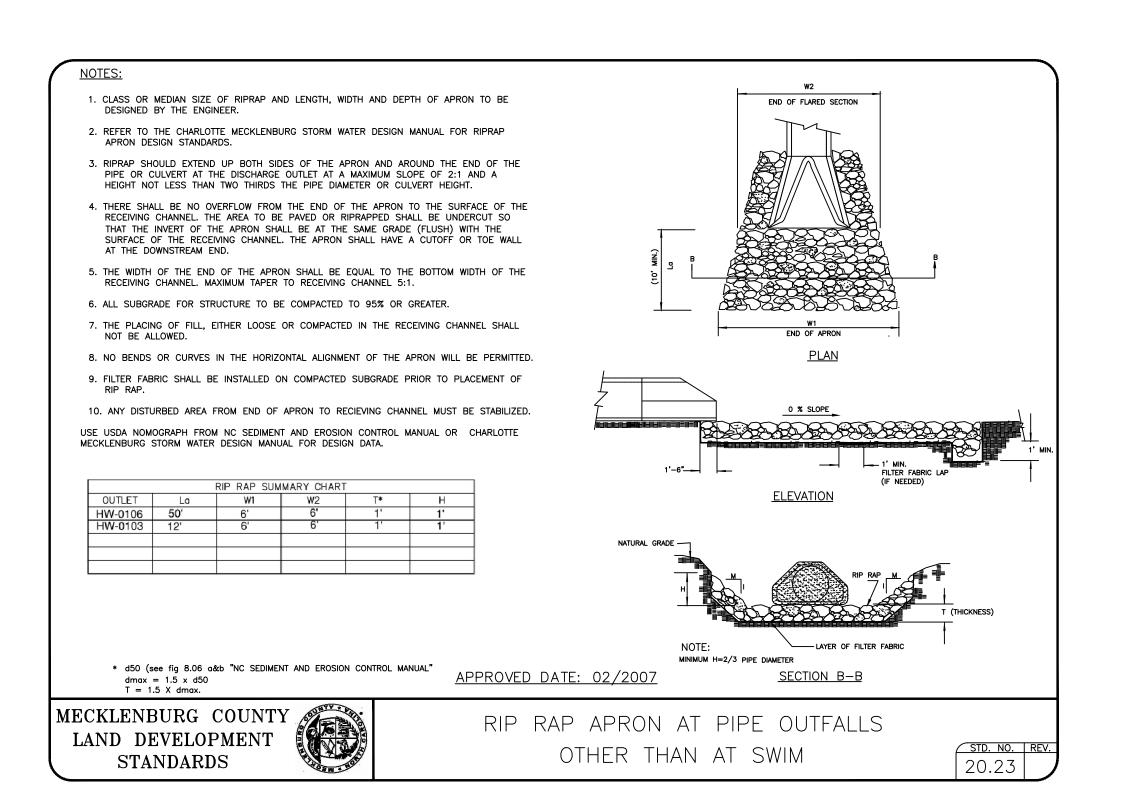


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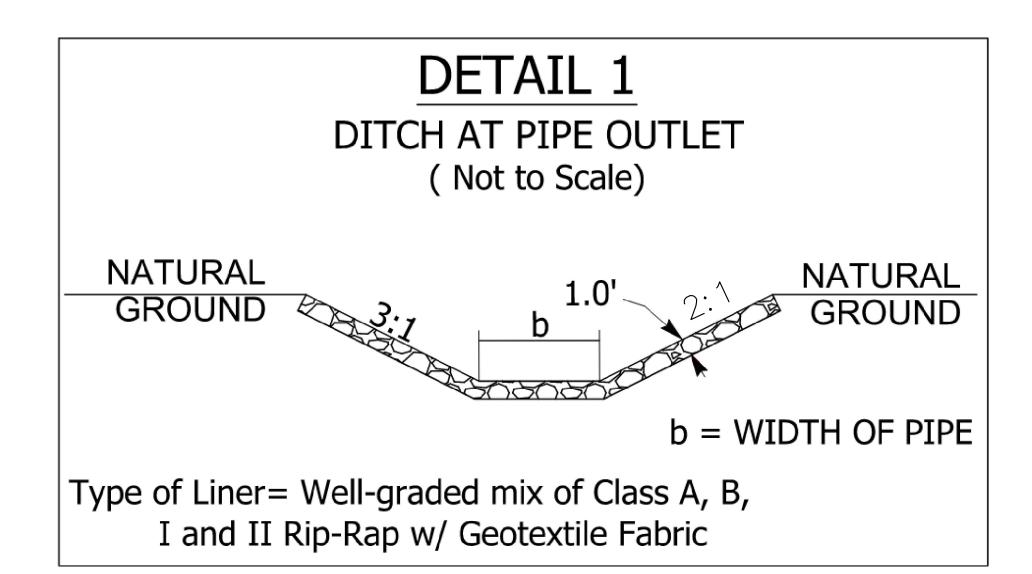




STANDARD CURB AND GUTTER







DITCH STATION	RIP RAP (TONS) [CLASS B]
STA 0+89.6 LT	3
STA 1+39.6 LT	11



HARLOTTE, NC 28202

SOUTH TRYON STREET SUITE 200, CHARLOTTE PHONE: 704-333-5131



SCALE AS SHOWN
DESIGNED BY ARM
DRAWN BY EAC

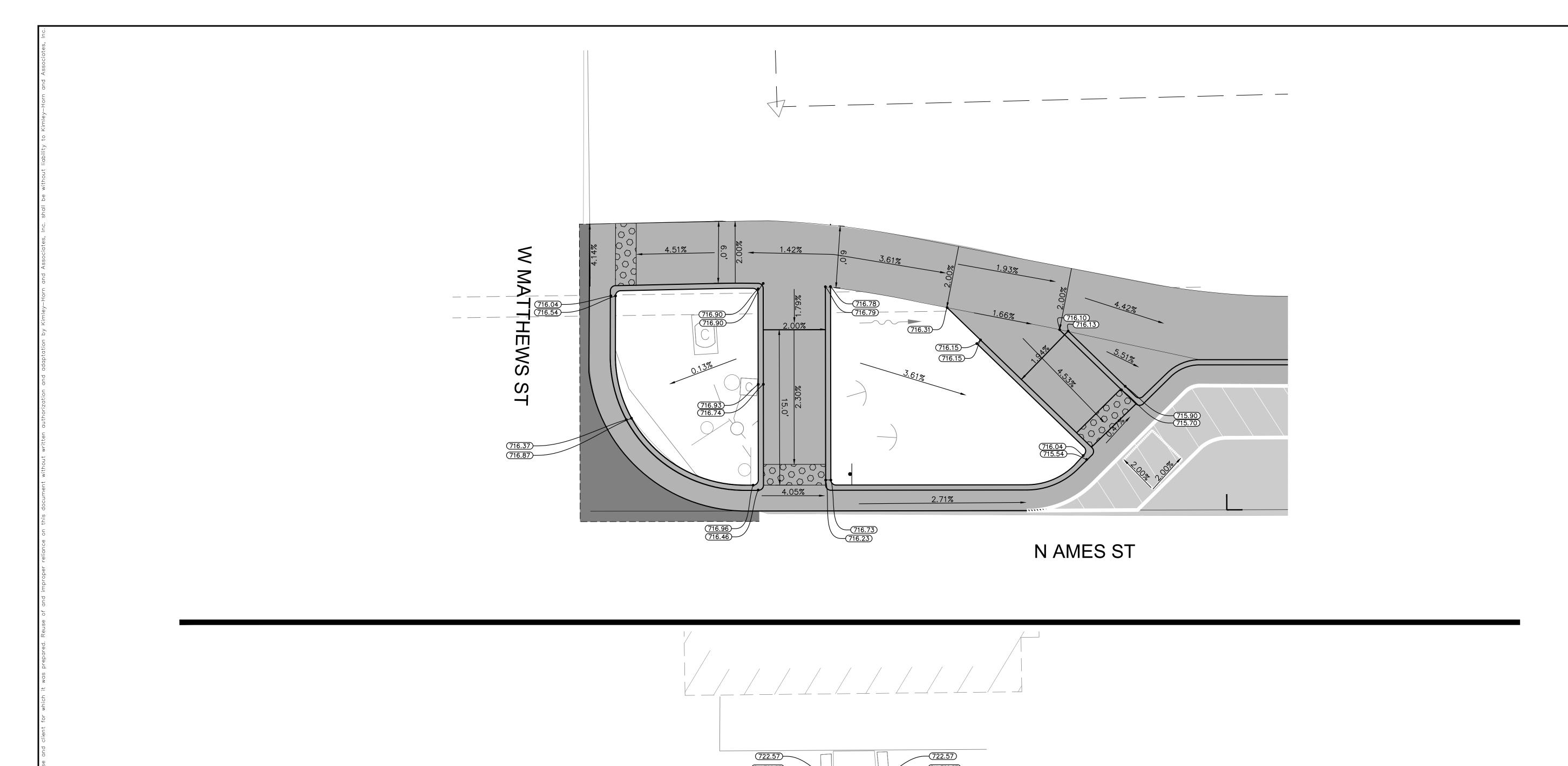
**DETAILS** 

SIDEWALK IMPROVEMEN

PREPARED FOR

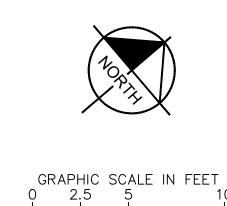
Town of House

SHEET NUMBER
C-5.1



TW: 724.31)\_

N AMES ST





**DETAILS** GRADING

SHEET NUMBER

C-5.2

Know what's below.

Call before you dig.

GRADING DETAILS

SCALE: 1"=5'



#### SEDIMENT AND EROSION CONTROL PROCEDURES **EROSION CONTROL** STORM DRAINAGE NOTES THE CONTRACTOR SHALL INSTALL AND MAINTAIN THROUGHOUT THE PROJECT CONSTRUCTION UNTIL THE FINAL 1. ALL STORM DRAINAGE PIPE WITHIN PUBLIC ROAD RIGHT-OF-WAYS TO BE CLASS III REINFORCED CONCRETE PIPE PER PRIOR TO CLEARING AND EARTHWORK ACTIVITIES, THE COUNTY/CONSULTANT SHALL OBTAIN AN APPROVED GRADING INSPECTION ALL EROSION CONTROL MEASURES SHOWN WITHIN THESE PLANS IN ACCORDANCE WITH APPLICABLE NCDOT STANDARDS, UNLESS OTHERWISE NOTED. PERMIT FROM THE NCDEMLR INSPECTOR AND THEN INSTALL ALL EROSION CONTROL DEVICES SPECIFIED AND AS NCDEMLR EROSION AND SEDIMENT CONTROL REGULATIONS. INDICATED ON THE DRAWINGS. DURING EACH PHASE OF SITE CONSTRUCTION THE CONTRACTOR SHALL ADJUST, 2. FLARED END SECTION INVERTS ARE SET AT OR SLIGHTLY BELOW EXISTING GRADE. VERIFY ELEVATIONS IN FIELD RELOCATE, AND/OR REINSTALL AS APPLICABLE ALL EROSION CONTROL DEVICES AND SEDIMENT DISCHARGE FROM THE 2. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NORTH CAROLINA EROSION PRIOR TO CONSTRUCTING PIPE SYSTEMS. AND SEDIMENT CONTROL REGULATIONS, U.S. DEPARTMENT OF AGRICULTURE, AND U.S. SOIL CONSERVATION SERVICE 3. A MINIMUM GRADE OF 0.50% SHALL BE MAINTAINED ON ALL PIPES. 2. SILT FENCE AND TREE PROTECTION FENCE SHALL BE MAINTAINED AROUND THE PERIMETER OF ALL EARTHWORK AREAS TO PREVENT SEDIMENT TRANSPORT ONTO ADJACENT PROPERTIES, AS APPLICABLE. 3. ALL CONSTRUCTION WORK SHALL BE IN COMPLIANCE WITH REGULATIONS OF THE NATIONAL POLLUTANT DISCHARGE 4. ALL PIPE AND INLETS MUST BE PROTECTED AT THE CLOSE OF BUSINESS EACH DAY. FLUSHING IS NOT AN ACCEPTABLE METHOD OF CLEANING. ELIMINATION SYSTEM (NPDES) STORM WATER GENERAL PERMIT. SILT FENCE FILTER BARRIERS SHALL BE INSTALLED AND MAINTAINED UNTIL CONSTRUCTION IS COMPLETE AND LANDSCAPING IS INSTALLED. 4. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES 5. SUBSURFACE DRAINAGE FACILITIES MAY BE REQUIRED IN THE STREET RIGHT-OF-WAY IF DEEMED NECESSARY BY THE TO MINIMIZE EROSION. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE NCDEMLR EROSION CONTROL THE CONTRACTOR SHALL IMMEDIATELY CLEAN UP AND REPAIR ALL EROSION DAMAGE AFTER DISCOVERY AND INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION. REINSTALL ADEQUATE CONTROL MEASURES AS NECESSARY TO PREVENT REOCCURRENCE OF DAMAGE. 6. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS ALL SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND AFTER 7. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES. WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS. CONTACT ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24 HOUR PERIOD. ALL SEDIMENT PROJECT ENGINEER AND PROJECT EROSION CONTROL INSPECTOR TO ENSURE ADDITIONAL EROSION CONTROL CONTROL FEATURES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION HAS BEEN OBTAINED. MEASURES ARE INSTALLED PRIOR TO OFF-SITE GRADING. 8. EFFLUENT FROM DENATURING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS STABILIZATION IS THE BEST FORM OF EROSION CONTROL. ALL DISTURBED AREAS WHICH ARE NOT OTHERWISE AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS BEEN TEMPORARILY OR PERMANENTLY 9. MATERIAL USED FOR BACK-FILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND STABILIZED SHALL BE TOP SOILED AND SEEDED, TEMPORARILY OR PERMANENTLY IN ACCORDANCE WITH THE NORTH CEASED. PROMOTE STABILIZATION. CAROLINA SEDIMENT CONTROL REGULATIONS. PERMANENT SEEDING AND GRASS ESTABLISHMENT IS REQUIRED PRIOR TO PROJECT COMPLETION AND ACCEPTANCE. 10. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL CONTRACTOR SHALL PROVIDE GROUND COVER ON EXPOSED SLOPES WITHIN 14 CALENDAR DAYS FOLLOWING REGULATIONS. COMPLETION OF ANY PHASE OF GRADING. PERMANENT GROUND COVER FOR ALL DISTURBED AREAS SHALL BE PROVIDED WITHIN 14 CALENDAR DAYS FOLLOWING COMPLETION OF CONSTRUCTION. 11. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH. 8. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 14 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION. **MAINTENANCE PLAN GRADING** 9. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. ALL EROSION AND SEDIMENTATION CONTROL DEVICES WILL BE CHECKED BY THE CONTRACTOR FOR STABILITY AND 10. WHEN A CRUSHED STONE CONSTRUCTION ENTRANCE HAS BEEN COVERED WITH SOIL OR HAS BEEN PUSHED INTO THE OPERATION FOLLOWING EVERY RUNOFF PRODUCING RAINFALL, BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES DURING SOIL BY CONSTRUCTION TRAFFIC, IT SHALL BE REPLACED WITH A DEPTH OF STONE EQUAL TO THAT OF THE ORIGINAL NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED. EROSION AND SEDIMENT CONSTRUCTION. AT LEAST 48 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY THE CONTROL MEASURES SHALL BE MAINTAINED CONTINUOUSLY, RELOCATED WHEN AND AS NECESSARY, AND SHALL BE CONTRACTOR SHALL NOTIFY THE NORTH CAROLINA ONE-CALL UTILITIES LOCATION SERVICE AT 1-800-632-4949 FOR PROPER IDENTIFICATION OF EXISTING UTILITIES WITHIN THE PROJECT SITE. CHECKED AFTER EVERY RAINFALL. SEEDED AREAS SHALL BE CHECKED REGULARLY AND SHALL BE WATERED, 11. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT FERTILIZED, RESEEDED AND MULCHED AS NECESSARY TO OBTAIN A DENSE STAND OF GRASS. TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT CONTRACTOR IS RESPONSIBLE FOR THE REPAIR AND REPLACEMENT OF ANY CURB & GUTTER, PAVEMENT, STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT LANDSCAPING, ETC. THAT MAY BE DAMAGED DURING CONSTRUCTION. DAMAGED ITEMS SHALL BE REPAIRED TO AT LEAST THE QUALITY OF WORKMANSHIP FOUND IN THE ORIGINAL ITEM. 2. MAINTAIN EROSION CONTROL DEVICES AS FOLLOW: 12. STABILIZATION OF DISTURBED AREAS SHALL PROGRESS WITH PIPE INSTALLATION. AT NO TIME SHALL PIPE \*TEMPORARY SILT FENCE— REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. AVOID UNDERMINING THE FENCE. 3. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE. INSTALLATION PROGRESS MORE THAN 500 FEET AHEAD OF FINE GRADING, SEEDING, AND MULCHING OPERATIONS. • TEMPORARY CHECK DAM— REMOVE SEDIMENT ACCUMULATION BEHIND THE DAMS AS NEEDED TO PREVENT DAMAGE TO CHANNEL VEGETATION. ADD STONE TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION. 13. THE CONTRACTOR SHALL MAINTAIN STORM DRAINAGE DURING PIPE INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL DEVICES SHOWN ON THE APPROVED PLANS FOR THE DURATION OF CONSTRUCTION OR UNTIL FINAL INSPECTION AND APPROVAL. 14. DISTURBED AREAS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE GRADED DAILY TO PREVENT PONDING OF STORM STORM DRAIN INLET PROTECTION— REMOVE SEDIMENT AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR WATER RUNOFF AND UNNECESSARY SOIL EROSION. IN ORDER TO ENSURE PROPER DRAINAGE, MAINTAIN A MINIMUM 0.50% SLOPE ON THE CURB. • TEMPORARY DIVERSION DITCH— INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK 15. THE ROADWAY CUT SHALL BE BACKFILLED AND STABILIZED AT THE END OF EACH WORK DAY WITH STONE MATERIAL, 6. ALL MATERIALS USED FOR FILL OR BACK-FILL SHALL BE FREE OF WOOD, ROOTS, ROCKS, BOULDERS OR ANY OTHER AND GRADED TO MATCH NORMAL GUTTER LINE ELEVATIONS AND SLOPES SO THAT NORMAL DRAINAGE WILL BE OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, NON-COMPACTABLE SOIL TYPE MATERIAL. UNSATISFACTORY MATERIALS ALSO INCLUDE MAN-MADE FILLS REFUSE REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND. DEBRIS DERIVED FROM ANY SOURCE. 16. SECURE EXISTING SANITARY SEWER DURING TRENCHING AND BACKFILLING OPERATION. 3. ALL GRADED AREAS WILL BE SEEDED, FERTILIZED AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE ALL CONTOURS AND SPOT ELEVATIONS REFLECT FINISHED GRADES. REFER TO THE PAVEMENT CROSS-SECTION DETAILS TO ESTABLISH THE CORRECT SUBBASE OR AGGREGATE BASE COURSE ELEVATIONS. PLAN TO MAINTAIN A VIGOROUS, DENSE, VEGETATIVE COVER WITHIN FOURTEEN (14) DAYS OF COMPLETION OF ANY 17. THE CONTRACTOR SHALL NOTIFY CHARLOTTE-MECKLENBURG UTILITY DEPARTMENT AND PIEDMONT NATURAL GAS PHASE OF GRADING. IF WORK ON THE PROJECT CEASES FOR MORE THAN THE AFOREMENTIONED LENGTH OF TIME, COMPANY, INC. PRIOR TO EXCAVATING AT OR NEAR SEWER MAINS, WATER MAINS, AND GAS MAINS. ALL DISTURBED AREAS SHALL HAVE TEMPORARY VEGETATIVE GROUND COVER ESTABLISHED AND EROSION CONTROL 8. ALL CONTOURS ARE IN REFERENCE TO THE BENCHMARK AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO GROUND BREAKING. DEVICES MAINTAINFD. 18. WHEN EXISTING FENCES ARE MOVED DURING CONSTRUCTION, THE CONTRACTOR SHALL SECURE PETS WITH TEMPORARY FENCING UNTIL PERMANENT FENCING IS RESET. 9. CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE. 19. THE CONTRACTOR IS TO MAINTAIN CONTINUOUS SANITARY SEWER FLOW AT ALL EXISTING SANITARY SEWERS. THE LIMITS OF CLEARING SHOWN ON THE GRADING AND EROSION CONTROL PLAN IS BASED ON THE APPROXIMATE CUT AND FILL SLOPE LIMITS, OR OTHER GRADING REQUIREMENTS. 20. THE CONTRACTOR IS TO MAINTAIN CONTINUOUS WATER SERVICE TO ALL RESIDENCES. 11. SLOPES SHALL BE GRADED NO STEEPER THAN 2:1 WITHOUT A GUARDRAIL OR SAFETY RAIL. 21. ANY STOCKPILING OF SOIL ON PAVED SURFACE SHALL HAVE SAND AND OR ROCK SCREENING UNDERNEATH AREA. 12. COORDINATE ALL CURB AND STREET GRADES AT INTERSECTIONS WITH MECKLENBURG COUNTY INSPECTORS. 22. CONTRACTOR IS RESPONSIBLE FOR AMENDMENTS TO PLAN FOR ADDITIONAL AREAS FOR STAGING PURPOSE. SUCH SEEDING SCHEDULE AND SEEDBED PREPARATION AREAS WILL BE STABILIZED. 13. ALL DEBRIS FROM CLEARING OPERATIONS SHALL BE DISPOSED OF IN A LEGAL MANNER. 23. PERMANENT VEGETATION SHALL BE INSTALLED IN CONJUNCTION WITH TEMPORARY SEEDING IF CONSTRUCTION OCCURS HAUL ROADS USED DURING CONSTRUCTION SHALL BE OUTSIDE THE STREAM TOP OF BANK TO THE EXTENT DURING THE SPECIFIED SEASON IN THE VEGETATION PLANS AND SPECIFICATIONS. IF NOT, PERMANENT VEGETATION POSSIBLE. HAUL ROADS SHALL FOLLOW THE NATURAL CONTOURS OF THE TERRAIN IF POSSIBLE. A 6" COURSE OF SHALL BE PLANTED DURING THE SPECIFIED SEASON. #57 STONE SHALL BE SPREAD OVER HAUL ROADS IN AREAS THAT ARE SUBJECT TO WET CONDITIONS. PROVIDE SUBSURFACE DRAINS IN SEEPAGE AREAS OR SEASONALLY WET AREAS. 24. CONTRACTOR IS TO USE NO. 57 STONE WHERE STONE IS REFERENCED FOR ALL SEDIMENTATION AND EROSION SEEDBED PREPARATION GRADED SLOPES AND FILL - THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE WHICH CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. 25. ADDITIONAL EROSION CONTROL MEASURES AND CONSTRUCTION ENTRANCES/EXITS MAY BE REQUIRED BASED ON FIELD CONDITIONS. IN ANY EVENT, SLOPES LEFT EXPOSED SHALL, WITHIN 14 WORKING DAYS OF COMPLETION OF ANY PHASE OF MISCELLANEOUS NOTES GRADING. BE PLANTED OR OTHERWISE PROVIDED WITH GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO GROUND COVER - WHENEVER LAND DISTURBING ACTIVITY IS UNDERTAKEN ON A TRACT COMPRISING MORE THAN ONE ACRE, IF MORE THAN ONE CONTIGUOUS ACRE IS UNCOVERED, A GROUND COVER SUFFICIENT TO RESTRAIN EROSION **GROUND STABILIZATION** MUST BE PLANTED OR OTHERWISE PROVIDED WITHIN 14 WORKING DAYS ON THAT PORTION OF THE TRACT UPON CONTRACTOR TO INSTALL IMPERVIOUS DIKES ALONG THE STREAM AS NEEDED AND UTILIZE SPECIAL STILLING BASINS WHICH FURTHER ACTIVE CONSTRUCTION IS NOT BEING UNDERTAKEN. SURFACE WATER CONTROL MEASURES TO BE INSTALLED ACCORDING TO THE PLANS. 2. PROPOSED CONTOURS SHOWN AS APPROXIMATE ONLY TO ILLUSTRATE GENERAL FLOW PATHS. SEE CROSS SECTIONS FOR ACTUAL ELEVATIONS. ) SOIL STABILIZATION SHALL BE ACHIEVED ON ANY AREA OF A SITE WHERE LAND-DISTURBING ACTIVITIES HAVE TEMPORARILY AREAS TO BE SEEDED SHALL BE RIPPED AND SPREAD WITH AVAILABLE TOPSOIL 3" DEEP. TOTAL SEEDBED OR PERMANENTLY CEASED ACCORDING TO THE FOLLOWING SCHEDULE: PREPARED DEPTH SHALL BE 4" TO 8" DEEP. 3. DO NOT INSTALL FILTER BAG INLET PROTECTION UNTIL GRADING BEGINS THAT WILL REQUIRE THE PROTECTION. i) all perimeter dikes, swales, ditches, perimeter slopes and all slopes steeper than 3 horizontal to 1 5. LOOSE ROCKS, ROOTS, AND OTHER OBSTRUCTIONS SHALL BE REMOVED FROM THE SURFACE SO THAT THEY WILL NOT 4. STABILIZE ALL SLOPES 3:1 AND GREATER WITH MULCH AND SEED AS NOTED IN EROSION CONTROL DETAILS. VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS INTERFERE WITH ESTABLISHMENT AND MAINTENANCE OF VEGETATION. SURFACE FOR FINAL SEEDBED PREPARATION, STABILIZE AS SHOWN (UNLESS OTHERWISE NOTES) ON THIS PLAN WITHIN 14 DAYS OF COMPLETION PER EROSION PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. AT FINISH GRADES SHOWN, SHALL BE REASONABLY SMOOTH AND UNIFORM. CONTROL NOTES. ii) ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOIL TEST MUST BE TAKEN. NO AMENDMENTS SHALL BE MADE THAT ARE NOT IN ACCORDANCE WITH SOIL TESTING SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. 7. LIME AND FERTILIZER SHALL BE APPLIED UNIFORMLY AND MIXED WITH THE SOIL DURING SEEDBED PREPARATION. 2) CONDITIONS — IN MEETING THE STABILIZATION REQUIREMENTS ABOVE, THE FOLLOWING CONDITIONS OR EXEMPTIONS SHALL APPLY: ACREAGE SUMMARY i) EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE. ii) ALL SLOPES 50' IN LENGTH OR GREATER SHALL APPLY THE GROUND COVER WITHIN 7 DAYS EXCEPT WHEN THE SLOPE IS FLATTER THAN 4:1. SLOPES LESS THAN 50' SHALL APPLY GROUNDCOVER WITHIN 14 DAYS EXCEPT WHEN SLOPES ARE STEEPER THAN 3:1, THE 7 DAY-REQUIREMENT APPLIES. 1. PROJECT DISTURBED AREA ±0.54 ACRES iii) ANY SLOPED AREA FLATTER THAN 4:1 SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT. iv) SLOPES 10' OR LESS IN LENGTH SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT EXCEPT WHEN THE SLOPE IS STEEPER THAN 2:1. v) ALTHOUGH STABILIZATION IS USUALLY SPECIFIED AS GROUND COVER, OTHER METHODS, SUCH AS CHEMICAL STABILIZATION, MAY BE ALLOWED ON A CASE-BY-CASE BASIS. vi) FOR PORTIONS OF PROJECTS WITHIN THE SEDIMENT CONTROL COMMISSION-DEFINED "HIGH QUALITY WATER ZONE" (I5A NCAC 04A. 0105), STABILIZATION WITH GROUND COVER SHALL BE ACHIEVED AS SOON AS PRACTICABLE BUT IN ANY EVENT ON ALL AREAS OF THE SITE WITHIN 7 CALENDAR DAYS FROM THE LAST LAND DISTURBING ACT. vii) PORTIONS OF A SITE THAT ARE LOWER IN ELEVATION THAN ADJACENT DISCHARGE LOCATIONS AND ARE NOT EXPECTED TÓ DISCHARGE DURING CONSTRUCTION MAY BE EXEMPT FROM THE TEMPORARY GROUND COVER REQUIREMENTS IF IDENTIFIED ON THE APPROVED E&SC PLAN OR ADDED BY THE PERMITTING AUTHORITY.



H CARO

SHEET NUMBER EC-01

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

#### **SECTION E: GROUND STABILIZATION**

	Required Ground Stabilization Timeframes				
Site Area Description		Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations		
(a)	Perimeter dikes, swales, ditches, and perimeter slopes	7	None		
(b)	High Quality Water (HQW) Zones	7	None		
(c)	Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed		
(d)	Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed		
(e)	Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope		

**Note:** After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

#### GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
<ul> <li>Temporary grass seed covered with straw or other mulches and tackifiers</li> <li>Hydroseeding</li> <li>Rolled erosion control products with or without temporary grass seed</li> <li>Appropriately applied straw or other mulch</li> <li>Plastic sheeting</li> </ul>	<ul> <li>Permanent grass seed covered with straw or other mulches and tackifiers</li> <li>Geotextile fabrics such as permanent soil reinforcement matting</li> <li>Hydroseeding</li> <li>Shrubs or other permanent plantings covered with mulch</li> <li>Uniform and evenly distributed ground cover sufficient to restrain erosion</li> <li>Structural methods such as concrete, asphalt or retaining walls</li> <li>Rolled erosion control products with grass seed</li> </ul>

#### **POLYACRYLAMIDES (PAMS) AND FLOCCULANTS**

- 1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMS/Flocculants.
- 2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
- 3. Apply flocculants at the concentrations specified in the NC DWR List of Approved PAMS/Flocculants and in accordance with the manufacturer's instructions.
- Provide ponding area for containment of treated Stormwater before discharging offsite.
- 5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

#### **EQUIPMENT AND VEHICLE MAINTENANCE**

- 1. Maintain vehicles and equipment to prevent discharge of fluids.
- 2. Provide drip pans under any stored equipment.
- 3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
- 4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- 5. Remove leaking vehicles and construction equipment from service until the problem has been corrected
- 6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

#### LITTER. BUILDING MATERIAL AND LAND CLEARING WASTE

- 1. Never bury or burn waste. Place litter and debris in approved waste containers.
- 2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
- 3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- 4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
- 5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- 6. Anchor all lightweight items in waste containers during times of high winds.
- 7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- 8. Dispose waste off-site at an approved disposal facility.
- 9. On business days, clean up and dispose of waste in designated waste containers.

#### PAINT AND OTHER LIQUID WASTE

- 1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- 2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- 3. Contain liquid wastes in a controlled area.
- 4. Containment must be labeled, sized and placed appropriately for the needs of site.
- 5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

#### PORTABLE TOILETS

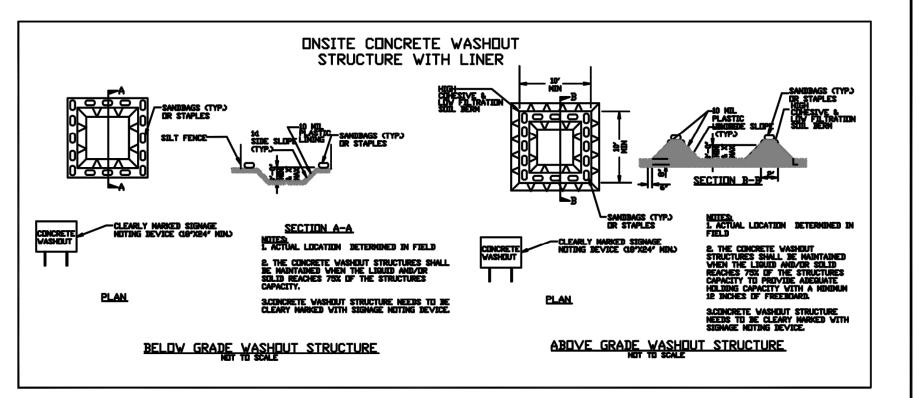
- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
- Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- 3. Monitor portable toilets for leaking and properly dispose of any leaked material.

  Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

#### **EARTHEN STOCKPILE MANAGEMENT**

- 1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- 3. Provide stable stone access point when feasible.
- 4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.





#### CONCRETE WASHOUTS

- 1. Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- 3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
- 4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- 5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- 6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
- 7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- 8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- 9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- 10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

#### HERBICIDES, PESTICIDES AND RODENTICIDES

- 1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
- 2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- 3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- 4. Do not stockpile these materials onsite.

#### **HAZARDOUS AND TOXIC WASTE**

- 1. Create designated hazardous waste collection areas on-site.
- 2. Place hazardous waste containers under cover or in secondary containment.
- 3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19



NC 28202

SOUTH TRYON STREET SUITE 200, CHARLOTTE, PHONE: 704-333-5131
WWW.KIMLEY-HORN.COM



11/20/2022
ALE AS SHOWN
SIGNED BY ARM

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SHEET NUMBER

EC-02

#### **SECTION A: SELF-INSPECTION**

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:	
(1) Rain gauge	Daily	Daily rainfall amounts.	
maintained in	,	If no daily rain gauge observations are made during weekend or	
good working		holiday periods, and no individual-day rainfall information is	
order		available, record the cumulative rain measurement for those u	
01421		attended days (and this will determine if a site inspection is	
		needed). Days on which no rainfall occurred shall be recorded as	
		"zero." The permittee may use another rain-monitoring device	
		approved by the Division.	
(2) E&SC	At least once per	Identification of the measures inspected,	
Measures	7 calendar days	2. Date and time of the inspection,	
	and within 24	3. Name of the person performing the inspection,	
	hours of a rain	4. Indication of whether the measures were operating	
	event ≥ 1.0 inch in	properly,	
	24 hours	5. Description of maintenance needs for the measure,	
		6. Description, evidence, and date of corrective actions taken.	
(3) Stormwater	At least once per	Identification of the discharge outfalls inspected,	
discharge	7 calendar days	2. Date and time of the inspection,	
outfalls (SDOs)	and within 24	3. Name of the person performing the inspection,	
	hours of a rain	4. Evidence of indicators of stormwater pollution such as oil	
	event ≥ 1.0 inch in	sheen, floating or suspended solids or discoloration,	
	24 hours	5. Indication of visible sediment leaving the site,	
		6. Description, evidence, and date of corrective actions taken.	
(4) Perimeter of	At least once per	If visible sedimentation is found outside site limits, then a record	
site	7 calendar days	of the following shall be made:	
Sicc	and within 24	Actions taken to clean up or stabilize the sediment that has left	
	hours of a rain	the site limits,	
	event ≥ 1.0 inch in	2. Description, evidence, and date of corrective actions taken, and	
	24 hours	3. An explanation as to the actions taken to control future	
		releases.	
(5) Streams or	At least once per	If the stream or wetland has increased visible sedimentation or a	
wetlands onsite	7 calendar days	stream has visible increased turbidity from the construction	
or offsite	and within 24	activity, then a record of the following shall be made:	
(where	hours of a rain	Description, evidence and date of corrective actions taken, and	
accessible)	event ≥ 1.0 inch in	2. Records of the required reports to the appropriate Division	
,	24 hours	Regional Office per Part III, Section C, Item (2)(a) of this permit	
		of this permit.	
(6) Ground	After each phase	The phase of grading (installation of perimeter E&SC	
stabilization	of grading	measures, clearing and grubbing, installation of storm	
measures		drainage facilities, completion of all land-disturbing	
		activity, construction or redevelopment, permanent	
		ground cover).	
		Documentation that the required ground stabilization	
		measures have been provided within the required	
		timeframe or an assurance that they will be provided as	
		soon as possible.	

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

# PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

#### **SECTION B: RECORDKEEPING**

#### 1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be documented in the manner described:

Item to Document	Documentation Requirements
(a) Each E&SC Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC Plan.	Initial and date each E&SC Measure on a copy of the approved E&SC Plan or complete, date and sign an inspection report that lists each E&SC Measure shown on the approved E&SC Plan. This documentation is required upon the initial installation of the E&SC Measures or if the E&SC Measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC Plan.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC Measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC Measures.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

#### 2. Additional Documentation

In addition to the E&SC Plan documents above, the following items shall be kept on the

and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- (a) This general permit as well as the certificate of coverage, after it is received.
- (b) Records of inspections made during the previous 30 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.
- (c) All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

# PART III

## SELF-INSPECTION, RECORDKEEPING AND REPORTING

#### SECTION C: REPORTING

#### 1. Occurrences that must be reported

Permittees shall report the following occurrences:

- (a) Visible sediment deposition in a stream or wetland.
- (b) Oil spills if:
  - They are 25 gallons or more,
  - They are less than 25 gallons but cannot be cleaned up within 24 hours,
  - They cause sheen on surface waters (regardless of volume), or
  - They are within 100 feet of surface waters (regardless of volume).
- (a) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- (b) Anticipated bypasses and unanticipated bypasses.
- (c) Noncompliance with the conditions of this permit that may endanger health or the environment.

#### 2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	<ul> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis.</li> <li>If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure complian with the federal or state impaired-waters conditions.</li> </ul>
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	<ul> <li>Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.</li> </ul>
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	<ul> <li>A report at least ten days before the date of the bypass, if possible.</li> <li>The report shall include an evaluation of the anticipated quality and effect of the bypass.</li> </ul>
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	<ul> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass.</li> </ul>
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(I)(7)]	<ul> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(I)(6).</li> <li>Division staff may waive the requirement for a written report on a case-by-case basis.</li> </ul>



NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19



No. REVISIONS

KIMIEY—NORNIMEY—HOFIE, NC PHONE: 704—333—5131 WWW.KIMLEY—HORN.COM



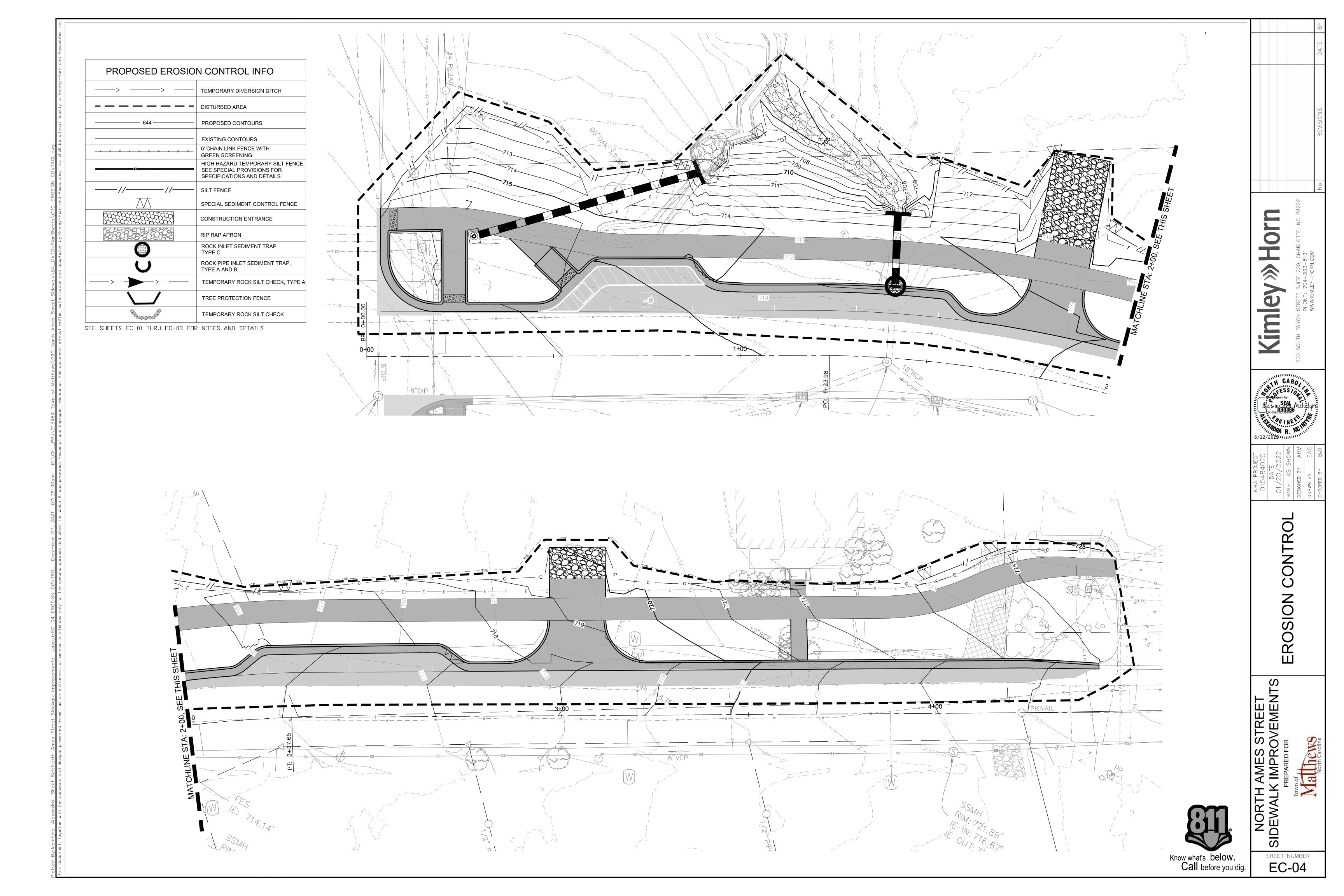
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SHEET NUMBER

EC-03



A) ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE REQUIREMENTS OF THE MOST CURRENT EDITIONS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES(M.U.T.C.D.), THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION(NCDOT) SUPPLEMENT TO THE M.U.T.C.D., THE NCDOT ROADWAY STANDARD DRAWINGS AND THE CURRENT EDITION OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.

B) THE CONTRACTOR IS TO NOTIFY THE TOWN OF MATTHEWS IN WRITING 10 WORKING DAYS IN ADVANCE OF ANY ROAD CLOSURE OR 5 WORKING DAYS PRIOR TO CLOSING ONE OR MORE TRAVEL LANES IN ACCORDANCE WITH SECTION 3 OF THE WORK AREA TRAFFIC CONTROL HANDBOOK (W.A.T.C.H).

C) THE CONTRACTOR SHALL BE REQUIRED TO FURNISH, INSTALL, RELOCATE, AND MAINTAIN ALL TRAFFIC CONTROL DEVICES, SIGNS, BARRICADES, WARNING AND/OR CHANNELIZING DEVICES FOR WORK SITES AND DETOUR ROUTES AS SHOWN IN TRAFFIC CONTROL PLANS UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.

D) CONSTRUCTION PHASING MAY DICTATE THAT TWO OR MORE TYPICAL W.A.T.C.H. DIAGRAMS OR STANDARDS BE USED IN ONE AREA OF CONSTRUCTION. CHANNELIZING DEVICES ASSOCIATED WITH THESE TYPICALS SHALL BE MOVED, SUPPLEMENTED, CHANGED, OR REMOVED AS NECESSARY TO COMPLY WITH THE CONSTRUCTION PHASING OF THE PLANS. THE LOCATION AND POSITIONING OF THESE DEVICES SHALL BE APPROVED BY THE ENGINEER TO ENSURE THAT THE MOTORIST DOES NOT RECEIVE FALSE INFORMATION WHEN TWO OR MORE TYPICALS AND/OR ROADWAY STANDARD DRAWINGS OVERLAP.

E) CONTRACTOR SHOULD BE AWARE THAT WHEN THE CONSTRUCTION AREA IS IN OR NEAR A VERTICAL CREST OR HORIZONTAL CURVE, THE WORK AREA SHALL BE EXTENDED SO THAT LANE CLOSURE BEGINS IN ADVANCE OF THE CURVE AND MINIMUM STOPPING SIGHT DISTANCE IS MET.

F) OFF-DUTY POLICE OFFICERS MAY BE REQUIRED AS DIRECTED BY THE ENGINEER TO BE PRESENT FOR CONTROLLING TRAFFIC DURING CONSTRUCTION HOURS.

G) THE CONTRACTOR SHALL MARK ALL HAZARDS WITHIN THE LIMITS OF THE PROJECT WITH WELL-MAINTAINED SIGNS, BARRICADES, WARNING AND/OR CHANNELIZING DEVICES. ON CONNECTING ROADS, ALL BARRICADES, SIGNS, WARNING, AND/OR CHANNELIZING DEVICES SHALL BE MOVED, SUPPLEMENTED, CHANGED, OR REMOVED AS REQUIRED DURING THE PROGRESS OF CONSTRUCTION AS APPROVED BY THE ENGINEER.

H) WORK ON THE PROJECT OR ANY SEPARATE ACTIVITY THEREIN SHALL NOT START UNTIL ALL OF THE REQUIRED SIGNS, BARRICADES, WARNING, AND/OR CHANNELIZING DEVICES ARE INSTALLED AND APPROVED BY THE ENGINEER.

I) THE CONTRACTOR SHALL CONTACT DANA STOOGENKE, PROJECT MANAGER (704-708-1245) WITH THE TOWN OF MATTHEWS TWO WEEKS PRIOR TO BEGINNING ANY WORK THAT WILL REQUIRE THE RELOCATION OR PLACEMENT OF SIGNS OR OTHER TRAFFIC CONTROL DEVICES BY THE TOWN.

J) THE CONTRACTOR MUST MAINTAIN DURING ALL PERIODS OF CONSTRUCTION ACTIVITY THE ABILITY TO FLAG TRAFFIC USING QUALIFIED FLAGGERS WHEN NECESSARY OR REQUIRED

K) THE CONTRACTOR SHALL INSTALL TEMPORARY PAVEMENT MARKINGS AND ADDRESS CONFLICTING PAVEMENT MARKINGS IN ACCORDANCE WITH SECTION 17 OF THE W.A.T.C.H. OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL MAINTAIN ANY EXISTING PAVEMENT MARKINGS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

L) THE CONTRACTOR SHALL MAINTAIN TWO WAY TRAFFIC ON ALL PORTIONS OF THIS PROJECT UNLESS OTHERWISE SPECIFIED IN THE PLANS, PROJECT NOTES, OR BY THE ENGINEER.

M) CONTRACTOR WILL BE REQUIRED TO PROVIDE PROPERTY OWNERS AND TENANTS ACCESS TO THEIR PROPERTY THROUGHOUT THE PROJECT LIMITS, INCLUDING REASONABLE INGRESS AND EGRESS FOR BUSINESSES. SPECIAL ATTENTION SHALL BE PAID TO FIRE HYDRANTS.

N) THE CONTRACTOR IS TO NOTIFY (BY MAIL) ALL PROPERTY OWNERS AND OCCUPANTS WHO HAVE DIRECT ACCESS TO THE ROADWAY WITHIN THE PROJECT LIMITS A MINIMUM OF 5 AND A MAXIMUM OF 10 WORKING DAYS PRIOR TO INSTALLING TRAFFIC CONTROL DEVICES IN FRONT OF THOSE PROPERTIES. NOTIFICATIONS SHOULD INCLUDE CONTACT PERSONS NAME, TELEPHONE NUMBER, EMAIL ADDRESS, AND MAILING ADDRESS.

O) THE CONTRACTOR SHALL PATROL THE WORK SITE AT THE BEGINNING AND END OF EACH WORK DAY (AT A MINIMUM) TO ENSURE THAT ALL TRAFFIC CONTROL DEVICES ARE IN PLACE AND FUNCTIONING PROPERLY. CONTRACTOR SHALL ENSURE THAT ALL TRAFFIC CONTROL DEVICES ARE IN PLACE AND FUNCTIONING AT ALL TIMES DURING PERIODS OF CONSTRUCTION INACTIVITY.

P) DURING PERIODS OF INACTIVITY OR AT NIGHT, EQUIPMENT SHALL NOT BE PARKED IN SUCH A MANNER AS TO BLOCK SIDEWALKS, TRAFFIC CONTROL DEVICES, OR THE MOTORISTS' VIEW OF TRAFFIC. EQUIPMENT SHALL BE AT LEAST 10 FEET AWAY FROM THE TRAVEL LANE.

Q) WHENEVER TRAFFIC MUST BE ROUTED ACROSS THE CENTERLINE DURING CONSTRUCTION ACTIVITY, THE TWO OPPOSING DIRECTIONS MUST BE PHYSICALLY SEPARATED. TRAFFIC CONES CAN BE USED FOR THIS PURPOSE DURING DAYLIGHT HOURS; REFLECTORIZED CONES OR DRUMS MUST BE USED AT NIGHT. TRAFFIC SHALL NOT BE ROUTED ACROSS THE CENTERLINE DURING CONSTRUCTION INACTIVITY UNLESS PAVEMENT MARKING CONFLICTS ARE APPROPRIATELY ADDRESSED AND AGREEMENT ON REMOVAL OR NOT IS WORKED OUT WITH THE ENGINEER. IF THE ENGINEER APPROVES TRAFFIC TO CROSS THE CENTER LINE DURING CONSTRUCTION INACTIVITY, ONLY REFLECTORIZED DRUMS MUST BE USED.

R) THE TOWN ENGINEER OR THEIR APPOINTED REPRESENTATIVES ARE AUTHORIZED TO STOP ANY WORK WITHIN PUBLIC RIGHT OF WAY THAT DOES NOT FOLLOW THIS TRAFFIC CONTROL PLAN OR REQUIREMENTS OF THE W. A.T.C.H. AND THE M.U.T.C.D. UNTIL SUCH REQUIREMENTS ARE MET.

S) ADJACENT LANES TO CONSTRUCTION ZONES MAY REMAIN OPEN IF LATERAL CLEARANCE BETWEEN EDGE OF TRAVEL LANE AND EQUIPMENT IS EQUAL TO OR GREATER THAN 2 FEET (INCLUDING WIDTH OF DRUM). IF A DROPOFF EXISTS WITHIN THE WORK ZONE, CONTRACTOR SHOULD FOLLOW SECTION 10 OF THE W.A.T.C.H. PERTAINING TO ADJACENT LANE CLOSURES DUE TO DROPOFFS.

T) THE CONTRACTOR SHALL FOLLOW THE PHASING AS DESCRIBED HEREIN. THE CONTRACTOR SHALL COMPLETE THE REQUIREMENTS OF EACH CONSTRUCTION PHASE IN SEQUENCE. WHEN A CONSTRUCTION PHASE IS DIVIDED INTO STEPS, THE CONTRACTOR SHALL COMPLETE THE REQUIREMENTS OF EACH STEP IN SEQUENCE. (EXAMPLE: THE REQUIREMENTS OF PHASE I SHALL BE COMPLETED BEFORE PROCEEDING TO PHASE II; THE REQUIREMENTS OF STEP 1 OF PHASE I SHALL BE COMPLETED BEFORE PROCEEDING TO STEP 2 OF PHASE I). ALL WORK DESCRIBED IN THE PROJECT PHASING SHALL BE PERFORMED BY THE CONTRACTOR, EXCEPT WHERE IT IS SPECIFIED FOR CERTAIN WORK TO BE PERFORMED BY OTHERS.

U) THE CONTRACTOR SHALL NOT BE ALLOWED TO STOP TRAFFIC FOR MORE THAN 5 MINUTES AT A TIME IN ANY ONE DIRECTION.

V) CONTRACTOR SHALL NOT BE ALLOWED TO WORK ON BOTH SIDES OF THE ROAD SIMULTANEOUSLY WITHIN THE SAME AREA EXCEPT WHERE THE ROADWAY IS DIVIDED BY A RAISED MEDIAN. IT WILL BE ACCEPTABLE TO CONSTRUCT BORE PITS ON EACH SIDE OF A ROADWAY FOR BORING UTILITIES UNDER THE ROADWAY UNLESS SUPERCEDED BY ENGINEER TO COMPLY WITH PEDESTRIAN REQUIREMENTS OR LATERAL CLEARANCE FROM TRAVEL LANES.

W) THE CONTRACTOR SHALL PAY SPECIAL ATTENTION TO SECTION VII (PEDESTRIAN CONSIDERATIONS) OF THE

#### PROJECT NOTES

1. CONTRACTOR SHALL PROVIDE AND INSTALL ALL FINAL PAVEMENT MARKINGS AND SIGNAGE.

2. DURING THE HOURS OF 7:00 AM-9:00 AM AND 4:30 PM-6:30 PM MONDAY THRU FRIDAY CONSTRUCTION OR MAINTENANCE WORK WHICH INVOLVES CLOSURE OF A TRAVEL LANE WILL NOT BE ALLOWED ON THOROUGHFARE STREETS EXCEPT FOR EMERGENCY SITUATIONS OR WITH APPROVAL FROM THE TOWN OF MATTHEWS.

3. CONTRACTOR SHALL SUPPLY AND INSTALL ALL TEMPORARY PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

4. CONTRACTOR SHALL WORK IN THE SHOULDER USING W.A.T.C.H DIAGRAM #4 AND #10 (DETAILS, THIS SHEET) TO CONSTRUCT CURB & GUTTER, DRAINAGE, SIDEWALK, TEMPORARY GRAVEL, DRIVEWAYS, ETC. ALONG THE WEST SIDE OF NORTH AMES STREET AND AT THE INTERSECTION OF NORTH AMES STREET AND WEST MATTHEWS STREET.

#### **STANDARDS**

1101.01.....WORK ZONE ADVANCE WARNING SIGNS

1101.02.....TEMPORARY LANE CLOSURES

1101.04......TEMPORARY SHOULDER CLOSURES 1110.02......PORTABLE WORK ZONE SIGNS

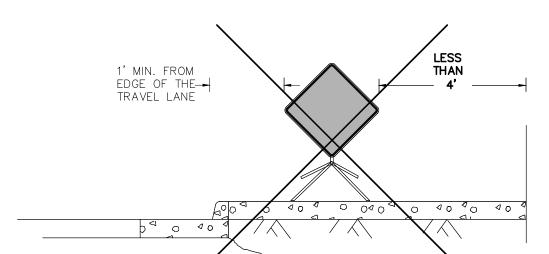
1135.01.....CONES 1150.01.....FLAGGERS

#### WATCH DIAGRAMS

#4 WORK AREA ON SHOULDER (MINOR ENCROACHMENT ON PAVEMENT)

#10 WORK AREA BEFORE AN INTERSECTION (FLAGGER CONTROL)

# 1' MIN. FROM— EDGE OF THE TRAVEL LANE PORTABLE SIGN IN SIDEWALK

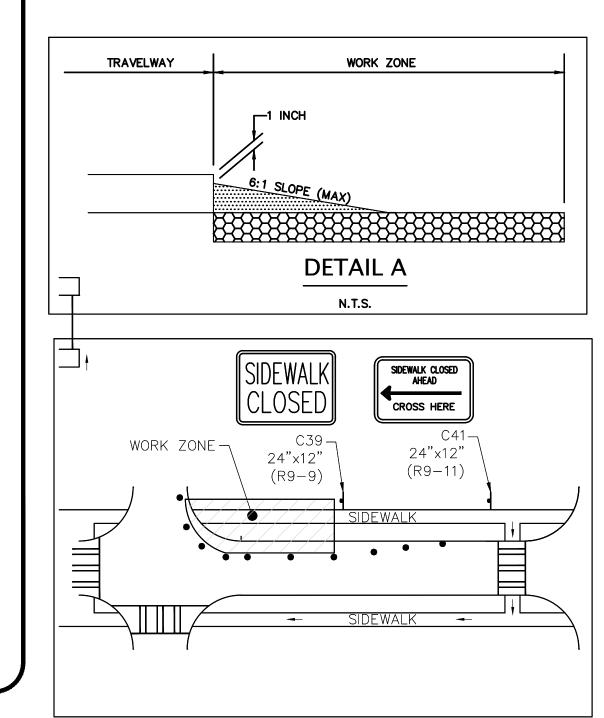


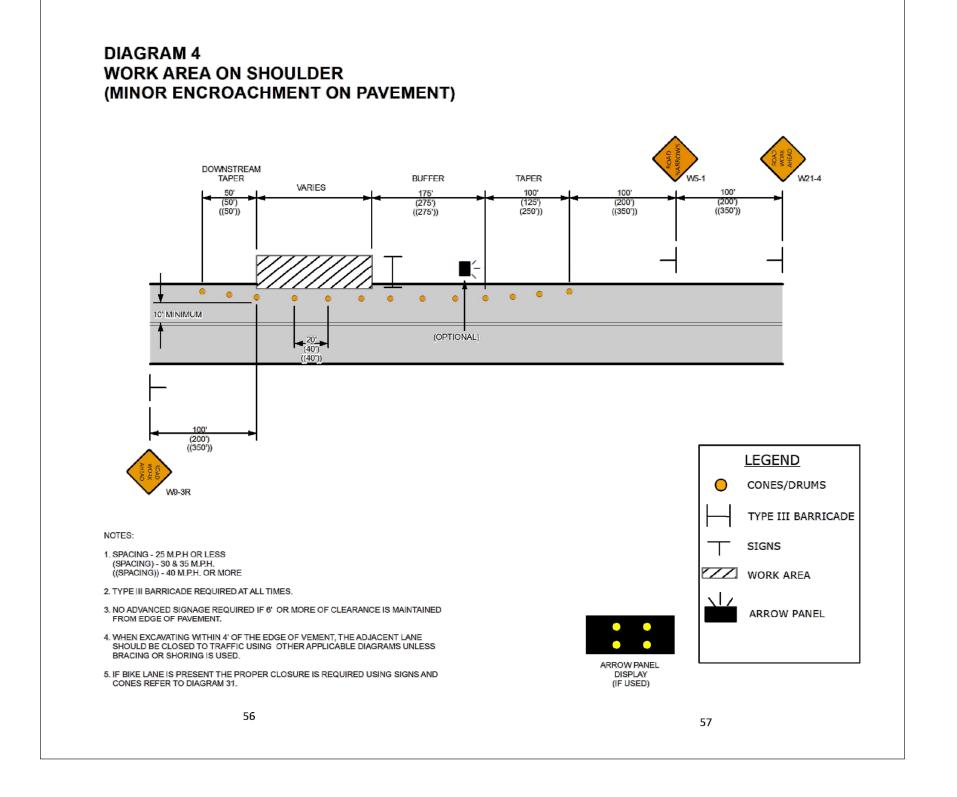
**ACCEPTABLE** 

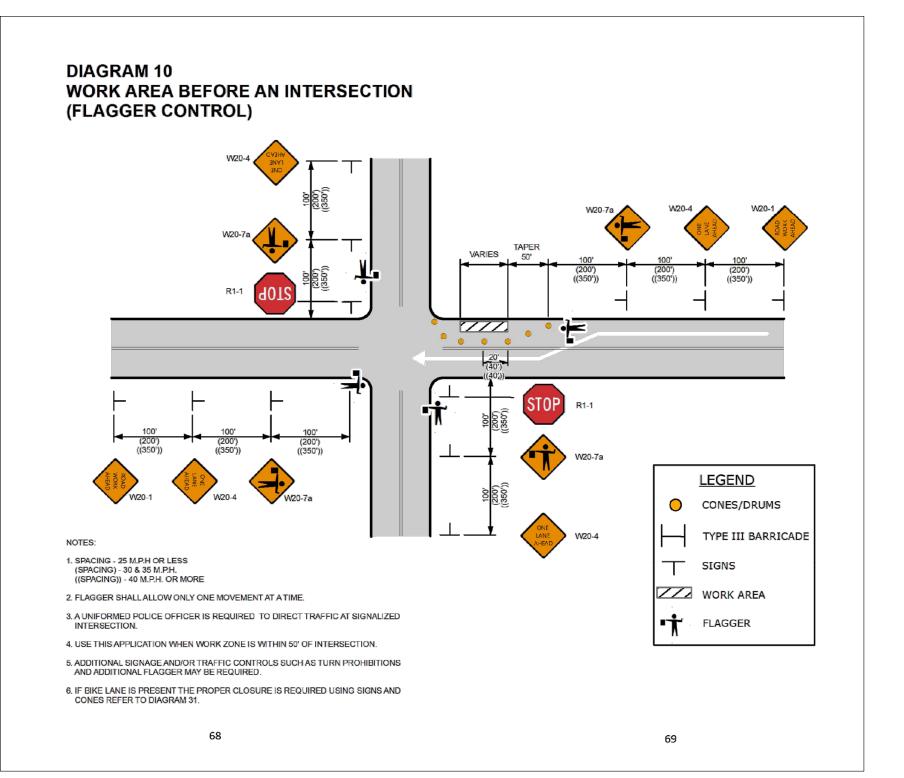
PORTABLE SIGN BLOCKING SIDEWALK

UNACCEPTABLE

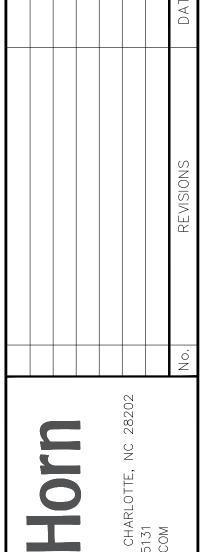
ALTERNATIVE OPTION IS TO PLACE SIGN BEHIND SIDEWALK WHEN POSSIBLE, OTHERWISE, MAY NEED TO POST MOUNT SIGN WITH 7' MINIMUM VERTICAL CLEARENCE FROM SIDEWALK SURFACE











SHEET NUMBER
TCP-01

